ANATOMY OF A REFORM
THE EXPEDITIONARY AEROSPACE FORCE

Richard G. Davis

Air Force History and Museums Program
2003

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2003		**00-00-2003 to 00-00-2003**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Anatomy of a Reform. The Expeditionary Aerospace Force.	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Air Force Historical Studies Office,AF/HO,1190 Air Force Pentagon,Washington,DC,20330-1190**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES
The original document contains color images.

14. ABSTRACT
see report

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**		**111**	

FOREWORD

SINCE MY ASSIGNMENT as Chief of Staff in October 1997, I have worked to bring the USAF into line with the realities of the post–Cold War era. Since 1991, the service has lost two-thirds of its foreign bases and one-third of its force structure and personnel. Yet our nation's strategy of selective engagement dictated that the service be ready to fight and win two nearly simultaneous major theater wars, while maintaining its commitments to a growing string of small-scale contingencies. The mismatch between resources and requirements was forcing the men and women of the USAF into a lifestyle characterized by high personnel tempo at the expense of family life. Drops in retention rates and recruitment indicated that the situation, if allowed to go unchecked, would soon reach serious proportions.

The answer was to create the Expeditionary Aerospace Force (EAF) — a new way of doing business that improved predictability and stability in personnel assignments and furnished the service with a powerful management tool to more efficiently align its assets with the needs of the warfighting Commanders in Chief. Fortunately, my predecessor had already poured the footings of the concept by beginning development of expeditionary forces for employment in Southwest Asia and elsewhere. EAF was an idea whose time had come, and on August 4, 1998, Acting Air Force Secretary F. Whitten Peters and I announced that the time for development had passed and that the USAF would now move as rapidly as possible toward full implementation.

This work offers a preliminary history of the development and initial implementation of EAF from our expeditionary heritage to the roll-out of the ten Aerospace Expeditionary Forces, on October 1, 1999. I recommend it not only to those who want to know what the EAF is, but to those who are interested in the unusual ability of the USAF to adapt to these challenging times.

Michael E. Ryan
General, United States Air Force
Chief of Staff

PREFACE

THIS WORK IS BASED on original documentation preserved during my Expeditionary Aerospace Force tour in the Pentagon. That material is currently in the archives of the History Support Office. Much of the material supporting this work consists of "powerpoint" briefings. Such presentations, created with the Microsoft™ Powerpoint slide program, are the lingua franca of U.S. military staffs and have become a universal method of transmitting information. A briefing is not immutable. At each iteration, it can change in slide order, in the information conveyed in each slide, in the script accompanying the slides, or in the addition or subtraction of individual slides. Briefing authors almost invariably alter their original presentation computer file for each new version, destroying the original in the process. Parsing the provenance of such a document is difficult and often impossible. I urge readers of this work to pay close attention to the dates and audience of each briefing cited in this work and remind them that although the title of a briefing may not change, its contents and thrust often do. For example, the "Evolving to an Expeditionary Aerospace Force — The Next Air Force Ethos" briefing cited often in Chapter 3 is, in fact, many separate and distinct presentations.

In the spring of 1999, Maj. Gen. Donald Cook, USAF, Director of EAF Implementation, asked the USAF History and Museums Program for assistance in preserving the history of the service's effort to implement the Expeditionary Aerospace Force concept. In response, the USAF History Support Office at Bolling AFB assigned a full-time historian to the Air Staff. As that historian, I spent the next ten months working with the Air Staff EAF Implementation Branch, collecting documentation, conducting interviews with key personnel, and supplying historical background data. As part of my collection efforts, I also interviewed personnel and gathered further documentation from the elements of the USAF major commands involved in making the EAF a reality. As the only civilian member of EAF Implementation Staff, I gained a unique perspective on its activities and accomplishments. I wish to thank my many friends on the Air Staff for their willing acceptance of and cooperation with a historian whose duties and functions they were unsure of, or had never encountered before.

THE AUTHOR

DR. RICHARD G. DAVIS, presently the Command Historian U.S. Forces Korea, U.N. Command, and Combined Forces Command, joined the USAF History Program in 1980, most recently serving as a senior historian with the USAF Historical Support Office, Bolling AFB. He received his BA in history from the University of Virginia at Charlottesville, his MA in European history from the University of North Carolina at Chapel Hill, and his PhD in European diplomatic history from George Washington University, Washington D.C. Among his previous publications are several articles in scholarly journals, *Carl A. Spaatz and the Air War in Europe 1940–1945,* and several monographs, including a work on U.S. Army – U.S. Air Force cooperation, *The 31 Initiatives*. His book, *On Target: Organizing and Executing the Strategic Air Campaign against Iraq* is being published by the USAF History and Museums Program. Dr. Davis has also edited "The USAF Desert Shield/Storm Oral History Project," a series of security-classified oral histories with key USAF personnel, and has completed a manuscript statistical history of the Anglo-American bombing offensive in World War II.

CONTENTS

1

AN EXPEDITIONARY HERITAGE

expeditionary *adj* (1817): of, relating to, or being an expedition, *also*: sent on military service abroad <an ~ force>

Webster's Ninth Collegiate Dictionary, s.v. "expeditionary"

ON AUGUST 4, 1998, the Chief of Staff of the United States Air Force (CSAF), General Michael E. Ryan, and the Acting Secretary of the Air Force (SECAF), F. Whitten Peters, announced their plans to implement a major change in the structure of the U.S. Air Force (USAF). They proposed to divide the USAF's combat strength and the elements directly supporting it into ten Aerospace Expeditionary Forces (AEFs). This proposal also envisioned a cultural change that would institutionalize an expeditionary focus into every facet of the service. Together the initiatives would make the Air Force of the twenty-first century an Expeditionary Aerospace Force (EAF). These moves came in response to a decade that witnessed a dramatic change in the national security environment stemming from the end of the Cold War. The Air Force leaders undertook these actions in order to make the USAF more responsive to the requirements of national strategy and more effective in joint operations, and to leverage its unique strengths as a service.[1] This work will examine the nature of military reform and the expeditionary heritage of the USAF, analyze the development of the EAF and AEF concepts before the announcement, and study the implementation of the concepts to October 1, 1999.

All organisms and organizations must respond to changing conditions or fail. The term fossil, an organism dead so long that its remnants have turned to stone, denotes a man who cannot or will not change; likewise an unchanging institution is fossilized — it merely marks time, waiting for its replacement. Reform,

by definition, is a response intended to improve conditions either by changing the form of the institution or by removing faults and abuses within it.

Although the EAF concept was a major step in recasting the operations, outlook, and culture of the USAF, it sprang from the performance of missions traditionally performed by the Air Force — the timely response of land-based air power to the needs of the nation. The following discussion examines this expeditionary heritage.

In many cases in twentieth-century warfare, speedy deployment, flexibility, and readiness have competed against one another rather than working together in a single package. The pre–World War I mobilization schemes of the European powers provide a classic example of such antagonism. To assure the quickest possible fielding of their ground combat forces, these nations locked their armies into giant, but completely inflexible, war plans. Military commanders made it clear to their civilian leaders that any compromise of the detailed time schedules for massing forces in defense of their nation would have disastrous consequences. This consideration was one of the key factors in thwarting diplomatic attempts to end the prewar crisis short of open hostilities. Once the Russians announced their mobilization (they had the longest timetable and were thus under the greatest pressure to move first), their potential enemies considered that they had little choice but to respond. When the rush to field the armies began, Germany's Schlieffen Plan proved the most efficient and most ruinous of all, for it specified an offensive against France, not Russia, and necessitated the violation of Belgian neutrality, which brought Britain into the war against Germany. The inflexibility of Germany's initial deployment scheme would eventually lead to its own defeat.

On the other side of the Atlantic Ocean, the very first use of American military aircraft to support combat operations occurred during Brig. Gen. John J. Pershing's Punitive Expedition into Mexico in 1916. The Army's Aviation Section supplied aerial reconnaissance and learned hard lessons concerning the fragility of aircraft operating at a distance from major airfields and the necessity of proper equipment for aircraft ground support elements. Once the United States entered World War I, its nearly total lack of military preparedness and readily deployable armed forces greatly delayed operations to support our Allies. Although the United States declared war on the Central Powers on April 17, 1917, its first infantry units, composed of prewar regulars, not conscripts, entered the front lines on October 20, 1917, and then only in quiet sectors for training purposes. Not until September 1918 would U.S. air power — in the form of American pilots flying aircraft of French and British manufacture — make a significant impact.

The short-notice humanitarian, prestige, and airlift aspects of the EAF concept also have a long history, dating to the interwar period when the U.S. Army Air Corps conducted airdrops to feed cattle stranded in winter storms, participated in border and forest fire patrols, flew goodwill missions to Latin America, and blazed the air route to Alaska.

The surprise Japanese attack on Pearl Harbor in Hawaii on December 7, 1941, and Japan's subsequent assault on the Philippines caught the U.S. Army Air Forces in the midst of an expansion and destroyed many of its most combat-ready forces. The inability to respond rapidly with adequate air power hampered the nation's early efforts. Operations against the main enemy, Germany, did not begin until June 1942, six months after the start of the war, when a single squadron of 12 B–24s bombed the Ploesti oil fields in Romania. The first heavy-bomber of the U.S. Eighth Air Force — which would later bring the Nazis to their knees with strategic bombing — did not arrive in England until July 2, 1942. And the Eighth did not fly its first heavy bomber combat mission until August 17, 1942. Of course, a ready force of three or four heavy bombardment groups would probably have made little difference in the overall progress of the war. In any case, fielding these groups was impossible due to the small prewar force and the late start in rearmament. Still, such a force might have inflicted substantial damage to a few key targets and boosted American and Allied morale. U.S. ground forces did not see action in the European theater until the invasion of French North Africa on November 8, 1942.

Ironically, the creation of the USAF as an independent military service in September 1947 marked the midpoint of a period of precipitate decline in force structure, procurement, and operations and maintenance funding that occurred between the hurried demobilization after World War II and the outbreak of the Korean War. The Air Force of June 1950 was but a shadow of the mighty weapon of August 1945. The service was unprepared for the North Korean invasion of South Korea. The Far East Air Forces found itself hampered by lack of airlift and bombardment aircraft, inadequate training, and the total absence of jet-capable airfields in South Korea. Even so, it flew its first combat mission on the night of June 27/28, within 24 hours of the decision of the United Nations (UN) and the U.S. government to come to the aid of South Korea. U.S. naval aircraft, flying from the carriers of Task Force 77 struck targets in North Korea on July 3, and the first U.S. ground forces, the ill-fated Task Force Baker formed from troops stationed in Japan, entered into combat on July 5, 1950. Although B–29s based in the Far East began operations over Korea on June 28, additional reinforcements arrived relatively swiftly from the continental United States (CONUS), in great part because they were in bomb groups belonging to Strategic Air Command (SAC). Because it had the monopoly for U.S. nuclear deterrent, SAC had the nation's highest funding priorities and was, therefore, better trained and had conducted prewar planning and exercises in foreign deployments. Nonetheless, the units from SAC did not fly their first combat mission until August 7, 1950 — seven weeks after the start of the conflict. However, the arrival of U.S.-based aircraft and ground control equipment from the USAF's Continental Air Command* — which would conduct and direct the bulk of the

*The Continental Air Command became the Tactical Air Command (TAC) in December 1950.

interdiction, air superiority, and close air support for the U.S. and allied armies — took far longer. Continental Air Command's successor organization, Tactical Air Command (TAC), had gotten the short end of the funding priorities. The first aircraft shipped from TAC, a reserve wing of B–26 bombers, began operations on October 27, 1950.[2] Lack of both an air-to-air refueling capability and a string of ready air bases for ferrying led TAC to ship some of its obsolescent F–51s as well as some of its state-of-the-art F–86s across the Pacific on U.S. Navy (USN) aircraft carriers, a misuse of flight decks that pleased neither service. As in the Second World War, three or four air wings immediately deployed may not have made a significant impact on the overall course of the war, but such a force placed in the hands of General of the Army Douglas A. MacArthur, Commander in Chief (CINC) Far East, might have slowed the North Korean advance and eased subsequent operations. Such a force would certainly have increased the morale of all U.S. personnel deployed in the theater and saved the Truman administration endless grief from critics of prewar preparations.

Its weak initial response to the outbreak of the Korean War led to the USAF's first attempt to institutionalize a rapid response force. Soon after the end of that war in 1953, TAC began to experiment with fielding a quick response force to deploy to bases with minimal facilities and to develop an air refueling capacity for its fighter aircraft. From these initiatives, TAC developed the Composite Air Strike Force (CASF), a small tactical air force composed of a command element and of fighter, reconnaissance, tanker, troop carrier, and communications support units. While it could fight, if necessary, the principal function of the CASF was to deter Communist aggression in such areas as the Middle East or Latin America, beyond the reach of American forces already stationed overseas. Its primary characteristic was fast reaction, and it would be as self-sufficient as possible. Each of its elements would prepare and store flyaway kits of spare parts and supplies, and each of its members would have specific deployment tasks assigned. Upon arrival in-theater, the unit would be able to sustain operations for 30 days on minimum logistics support, with the addition of required food, fuel, and munitions. Air-to-air refueling not only made rapid response possible, it enabled the various elements of the CASF to maintain themselves economically on their home bases until the need to deploy arose. Once the CASF concept was fully implemented and tested by the late 1950s, the first strike elements of a CASF could arrive in the Middle East within 16 hours of notification, with the total force in place and ready for operations in 48 hours. In the Far East the lead elements would arrive within 36 hours, with the full force in operational status within 72 hours. On July 8, 1955, TAC activated the command element of the CASF, the Nineteenth Air Force.

The headquarters of the Nineteenth Air Force was one of the most unusual air units ever created. It had no permanently assigned aircraft or combat units. Nor did it have, since it was an operational headquarters only, any units or bases to supervise, train, or inspect. When not deployed, the Nineteenth had a close

working relationship with the Ninth Air Force,* which supported its administrative functions with many of its own people. These circumstances allowed the Nineteenth to limit its staff to approximately 85 military and 6 civilian personnel. Its mission was to prepare contingency plans for and to command short-notice deployments of the CASF anywhere in the world. It required each individual member to be ready for instant departure from the United States, and its staff sections maintained 30-day flyaway kits prepared for shipment. The Nineteenth worked closely with U.S. Army contingency units, and at one point, one-third of its staff was jump-qualified, able to parachute in with U.S. Army airborne troops. In the event of a crisis, the Nineteenth (working from a prepared plan which designated specific units, travel routes, en route support, and timing) would take command of the deploying CASF and serve as part of a joint task force, as a senior air command, or as a component command. At first glance the Nineteenth had a normal headquarters organization with major sections for planning, operations, and logistics. However, these sections had an important secondary function: each served as the lead command element for various geographical contingencies. The plans section would lead Europe and Middle Eastern deployments; the operations section would lead those to the Pacific; and the logistics section would lead deployments to Latin America, the Caribbean, and Africa. This unique arrangement allowed for continuity of planning and expertise and helped overcome some of the disadvantages inherent in the U.S. armed forces policy of churning personnel through different assignments every three or so years. Within the service, the Nineteenth soon earned its nickname: The Suitcase Air Force.

In keeping with its mission of deterrence, a CASF, in theory, consisted of three task forces, each of which could vary in size and composition, according to its assigned task. The first task force had only a limited combat capability and consisted of a show-the-flag or a good-will package. It could fulfill the role of gunboat diplomacy. A force such as this went to Turkey, Iran, and Pakistan (Operation Quick Span) in February 1960. The second task force consisted of the basic CASF combat element and would serve as the initial force for a small war. TAC kept the units of the second task force on a progressive 24-hour alert system and planned for the first portion to move within four hours of alert and the entire force to deploy in 24 hours. The third task force, composed of additional fighter squadrons, would augment the second if the situation required an expanded force.

Before its demise in 1973, apparently for reasons of economy, the Nineteenth Air Force participated in several domestic and foreign contingencies. In 1958 the CASF concept underwent its most severe test. On July 15, 1958, President

*In its first two years, the Nineteenth was directly attached to the Ninth. In July 1957 it moved to the direct control of TAC headquarters but it maintained its working relationship with the Ninth Air Force, whose support enabled the Nineteenth to retain its small footprint.

Eisenhower, acting at the request of the Lebanese government, sent the U.S. Marine Corps (USMC) into Beirut to help preserve that small country from a wave of popular discontent that was sweeping the Middle East, toppling monarchies in Syria and Iraq and replacing them with military regimes hostile to U.S. interests. To support the Marines, the National Command Authorities (NCA) alerted the CASF. Within three hours, B–57 tactical bombers left their bases for the only friendly major operating airfield in the region, Adana Air Base (AB), Turkey, fifteen minutes' flight time from Beirut. In another three hours, TAC KB–50J tankers left their mid-Atlantic bases to refuel F–100 fighters departing Myrtle Beach Air Force Base (AFB), South Carolina, while RF–101s and RB–66s left Shaw AFB, South Carolina. Sixty C–130s ferried support personnel, spare parts, and equipment. Thirteen hours and 6,700 miles after the initial alert, the F–100s were taxiing to alert ramps at Adana. All deployed aircraft came from the Ninth Air Force. Within two days an underutilized Turkish Air Force gunnery base had become an American air center, with an operations center manned by Nineteenth Air Force personnel (flown in on a single C–130) and integrated with USN, USMC, and U.S. Army forces in the Middle East.

Because the entire Nineteenth Air Force headquarters had deployed to Lebanon, TAC ordered its Twelfth Air Force to form another command element similar to that of the Nineteenth, should another emergency arise. Given the upsurge in tension between the Communist Chinese government on the Asian mainland and the Nationalist Chinese regime on Taiwan, the new command element focused its planning on the Far East. The People's Republic of China had announced its intention to reincorporate a series of small Nationalist-held islands within artillery range of the mainland, in particular the islands of Quemoy and Matsu. During the summer of 1958, the magnitude and duration of the Communists' bombardments increased dramatically. The United States responded by supplying the Nationalists with tanks and new heavy and longer-ranged artillery as well as by beefing up its own forces in the region. TAC placed on alert a squadron of F–100s; transport aircraft loaded with supplies, parts, and equipment; and a communications and control squadron. It also began to "lean forward," sending tankers, weathermen, maintenance crews, and control units to islands on the air route between California and Thirteenth Air Force headquarters at Clark AB in the Philippine Islands. Late on August 29, 1958, the second CASF received the "go" order. F–100s carrying Sidewinder air-to-air missiles took off on August 30 and spent that night at Hickam AFB, Hawaii. The next night they were at Guam, where Typhoon Lola delayed their movement for 24 hours. On September 2, they landed at Clark AB, after a flight of 9,500 miles and an elapsed time of 96 hours. RF–101s arrived soon after, and C–130s formed an airlift bridge carrying support personnel, equipment, tools, and workstands to Clark. On September 5 and 6, the CASF, with much assistance from the both the Thirteenth Air Force and the Fifth Air Force in Japan, flew to a Nationalist air base on Taiwan where they came under the control of a joint operations center established the previous day by CASF personnel. Nine days later, a squadron of

F–104s occupied another Nationalist air base. Two more fighter squadrons and one of B–57 bombers backed up this force and assumed station at Kadena AB, Okinawa. The mission of all units was to defend the straits between Formosa and the mainland.

In the fall of 1962 the Nineteenth participated in two significant deployments, both within the United States. In September, when racial tension over the integration of the state university in Oxford, Mississippi, caused the federal government to send in troops, personnel of the Nineteenth coordinated airlift activities. Then, in mid-October, the Nineteenth moved from its home base, Seymour Johnson AFB, North Carolina, to Homestead AFB, Florida. Once at Homestead, the Nineteenth spearheaded the deployment of TAC units at the beginning of the Cuban missile crisis. The Nineteenth's commander headed the main air operations center, the Air Force Atlantic Advanced Operational Nucleus (AFLANT ADVON), which activated shortly after President Kennedy's speech declaring a quarantine of Soviet missile shipments into Cuba. Augmented by airmen and officers from other TAC air forces, AFLANT ADVON soon controlled nearly 1,000 aircraft and 7,000 men and women. The Nineteenth returned to North Carolina in December 1962 when the crisis ended.

In 1963 the Nineteenth conducted two show-the-flag exercises. The first went to Saudi Arabia in early May. There, the Nineteenth helped to train Saudi pilots and supervised a tactical demonstration at Jidda International Airport for 30,000 spectators that included Crown Prince Faisal, the Prime Minister, the Saudi Foreign Minister, and other royalty and officials. The second went to India in October. There, in Exercise Shiksha (Sanskrit for training), the Nineteenth, in cooperation with the British and Australian Royal Air Forces, helped to improve Indian Air Force air defense capabilities and provide other tactical training. This effort was partially in response to the earlier division-sized Sino-Indian conflict. Throughout its existence, the Nineteenth also participated in numerous joint exercises within the United States as well as in practice alerts.

For practical purposes, the war in Vietnam ended the work of the Nineteenth, as that conflict absorbed a large proportion of the USAF's assets not directly dedicated to the nuclear deterrent and consequently lessened the nation's ability to intervene in other crisis areas. At the beginning of the Vietnam War, a CASF deployed in response to the Tonkin Gulf incidents, and in 1968 the last CASF deployment came in support of American forces in the Republic of Korea during the USS *Pueblo* incident. The Nineteenth ceased existence in July 1973, shortly before the Yom Kippur War, where it might have proved of use in overseeing the U.S. resupply effort to Israel. In addition to its crisis management, the Nineteenth left an enduring legacy to the USAF. Through the efforts and requirements of the Nineteenth, the service developed the Airborne Command, Control, and Communications (ABCCC) aircraft, which has proved of inestimable value in providing an airborne headquarters for more than 30 years.

Although not conducted by the Nineteenth, the dispatch to the Republic of Vietnam of the first USAF detachment to fight as an intact combat unit, as

opposed to a purely advisory unit, once again illustrated how leisurely such movements could be. President Kennedy ordered a squadron-sized force of 155 personnel, designated "Farm Gate," to South Vietnam on October 11, 1961. It consisted of a composite force of older piston-engined T–28 trainer ground-attack aircraft, B–26 attack bombers, and C–47 transports. Its lead elements left Eglin AFB, Florida, on November 5 and arrived in Vietnam on November 16. Its final combat element did not join the unit until the end of December 1961.[3]

With the demise of the Nineteenth, the end of the war in Vietnam, the switch to an all-volunteer force, and the severe cost restraints of the middle and late 1970s, the quick-reaction forces languished. One embarrassment came in January 1979 when the United States dispatched unarmed F–15Cs to Saudi Arabia in response to the fall of the Shah of Iran. Worse followed fifteen months later when the United States attempted to rescue diplomats seized by the Iranian regime from the American Embassy in Teheran. On April 24, 1980, U.S. military planning reached a nadir, when the jointly managed Operation Eagle Claw (sometimes known as Desert One, after the landing site) ended in a fiasco. In this disaster and other experiences, such as the operation against the island of Grenada and the mishandling of the Marine expedition to Beirut, both in 1983, the three armed services demonstrated shortcomings in mutual cooperation. Dissatisfaction with these efforts led to the National Defense Reform Act of 1986 (Goldwater-Nichols). This act attempted to institutionalize joint service actions. It greatly strengthened the role of the CINCs in planning and conducting their own operations, and it supplied the CINCs with designated operating headquarters for each of their components. This obviated the need for a service headquarters which, like the Nineteenth's, would arrive on-the-fly to organize a CINC's air power.

The first test of Goldwater-Nichols came in December 1989 with Operation Just Cause against Panamanian dictator Manuel Antonio Noriega, a major political-diplomatic problem but a minor military threat. A long-simmering crisis gave the Americans several weeks to complete their preparations in which U.S. Army and Special Forces planners took the lead, relegating the USAF to a supporting role. Although USAF F–117A stealth bombers staged a single demonstration raid (at the Army's express request) and USAF gunships supported Special Forces operations, the USAF's main contribution was airlift for Army reinforcements. Just Cause demanded neither the employment of significant USAF combat forces nor a quick start from a standing stop.

On August 2, 1990, the Iraqi seizure of Kuwait sparked a far more significant test of Goldwater-Nichols and USAF rapid reaction. The U.S. response to Iraqi aggression, Operation Desert Shield – Desert Storm, differed from Panamanian operations in many important respects. The Iraqis posed an infinitely greater military challenge. Whereas the Americans had staged Just Cause from CONUS bases and the U.S.-occupied Panama Canal Zone, the war in the Persian Gulf required that basing permission be obtained from several nations in the Middle East, as well as transit permission and support from nations along the air routes

leading to the region. In comparison to approximately 50,000 troops involved in Panama, the Gulf War would require almost 300,000 American military men and women in-theater or providing support. This was the greatest American deployment since the war in Vietnam. Coalition partners augmented the American force in almost equal numbers. Lastly, the crisis came as a result of a strategic surprise rather than a long-anticipated contingency.

Two USN carrier task forces began to steam toward the crisis area on August 2.* Additional American military forces responding to Saddam Hussein's conquest of Kuwait did not begin to move forward until five days after the event. On the evening of August 6, 1990, King Fahd ibn Abdul Aziz of Saudi Arabia accepted an American offer of military assistance and granted U.S. forces basing privileges in his country. At that point the Joint Chiefs of Staff (JCS) ordered forces to begin deploying to the Persian Gulf. The initial combat force, a fully armed squadron of the 1st Fighter Wing's F–15C air superiority fighters on standby status since August 1, left its home field, Langley AFB, Virginia, and touched down at King Abdul Aziz Royal Saudi Air Force Base (RSAFB), Dhahran, on August 8, 34 hours after receiving the deployment order. USAF Airborne Warning and Control System (AWACS) aircraft landing at Riyadh RSAFB beat the F–15Cs by three hours. Other aircraft flowed in until, by August 10, 45 F–15Cs, 24 F–15E Strike Fighters (without precision munitions capability), 24 multirole F–16s, and one EC–135 Rivet Joint electronic warfare aircraft were in-theater. Seven B–52Gs based in Diego Garcia were available for combat by August 12. F–4G Wild Weasels for suppression of enemy air defenses flew into Shaikh Isa airfield on August 16, while precision munition-capable F–117A stealth bombers landed in-theater on August 17, as did the initial ABCCC aircraft. A–10A attack aircraft reached the theater on August 20; EF–111 electronic countermeasure aircraft landed on August 24, and F–111F precision munition-capable fighter bombers closed on the theater by August 26. As for the U.S. Army, the lead elements of the ready brigade of the 82d Airborne Division left Pope AFB, North Carolina, via USAF airlift on August 8 and arrived the next day to set up defensive positions. The entire brigade was in place by August 13. On August 10, the first ship to carry army tanks and heavy vehicles arrived at a U.S. port to begin loading for the 25-day voyage to Saudi Arabia. On August 14, USAF airlift brought in the beginning portions of the USMC's 7th Marine Expeditionary Brigade. That 17,000-man force was ready for combat by August 26.[4] When compared to earlier conflicts, the U.S. armed forces had responded rapidly and with a ready force.

While the USAF had sent in a force capable of deterring or doing severe damage to any Iraqi forces seeking to invade Saudi Arabia, the flow of aircraft had not been entirely satisfactory, nor had it taken full advantage of air power's

*One of these task forces came from Diego Garcia, 2,400 miles from the Gulf of Oman; the other had to sail from the Mediterranean Sea to the Red Sea, which required Egyptian permission to traverse the Suez Canal. They carried approximately 100 strike aircraft.

inherent flexibility. The late appearance of the Wild Weasels and stealth bombers would have denied force protection assets and highly accurate deep-strike potential to other aircraft conducting initial combat operations. The lack of these two capabilities might have caused unnecessary casualties and lessened the overall effectiveness of the first air operations. When hostilities actually commenced in January 1991, much larger components of the armed services had taken up station in the theater.

Within weeks of the end of the Persian Gulf War on February 28, 1991, the USAF began its participation in Operation Provide Comfort, supplying humanitarian aid and protection in a safe area in northern Iraq, near the Turkish border, for Kurds fleeing their failed rebellion against Saddam. This began a new era of continuing small-scale deployments for the U.S. armed services. By the close of 1991, the USSR had dissolved into its constituent republics, which ended its competition with the United States for world preeminence and ushered in the end of the Cold War. This hastened a process of retrenchment and large force-structure cuts already under way in the American military. In 1992 the USAF would face a much different set of circumstances than it had confronted before. The search for a method of solving the challenges presented by the emergent situation would consume much of the remainder of the decade and result in the implementation of the AEF reform.

2

THE PROBLEM

The declining size of our military demands the abandonment of the business as usual mindset. Innovative thinking is key to reducing duplication and getting the most from our defense budget.

Sheila E. Widnall, Secretary of the Air Force, 1993–1997

WITH THE EAF CONCEPT AND AEF STRUCTURE, the USAF attempted to remedy two serious concerns. The first revolved around impaired readiness — the overtaxing of materiel and units in current operations — which deprived the units of resources and training time needed to maintain their capabilities at the required levels. The second involved inadequate recruitment and retention — a failure to attract sufficient new recruits and an inability to retain current personnel.

The cause of these concerns stems from a series of interrelated U.S. national security requirements based on the international situation as it evolved in the 1990s, a period characterized by multiple regional crises and U.S. force deployments. The last decade of the twentieth century differed greatly from the previous forty-five years, the era of the Cold War, when the American-Soviet competition for world preeminence produced a bipolar division in world politics. With the 1989–1991 implosion and collapse of the Soviet Union, a different international structure emerged. The new situation left the United States the preeminent world power while removing many of the constraints on lesser powers and opening large regions to new ideologies. In a sense, the Persian Gulf War of 1991 simultaneously ushered in the new order and finished off the old. Politically, Saddam Hussein, Iraq's leader, felt free to act against Kuwait because

the USSR could not assert sufficient influence to restrain its erstwhile client. Yet in the military sphere, the United States and other major coalition partners triumphed in part because they had trained so long and so well to defeat a Soviet-style opponent.

National Security Policy

For most of the 1990s, national security policy, which balances economic, diplomatic, military, and domestic political considerations, has continually increased the overseas requirements on American military forces while limiting the resources invested in them. A look at one very broad indicator, the annual total obligational authority (TOA) of the Air Force for the fiscal years (FYs) 1981–1998, reveals the swings in federal budget dollars allocated to the service.

USAF Total Obligational Authority (in then-year billions)[5]

FY	Dollars	FY	Dollars	FY	Dollars
1981	52.4	1987	93.6	1993	79.8
1982	65.0	1988	90.3	1994	80.3
1983	73.4	1989	94.7	1995	73.6
1984	85.3	1990	93.2	1996	74.3
1985	96.5	1991	91.2	1997	73.2
1986	93.9	1992	83.0	1998	76.3

The FY 1981 USAF budget, the last of the Carter administration, saw a 50-percent increase over the budget of just two years earlier. This increase was a reaction to the Soviet invasion of Afghanistan, the crisis in Iran, and repeated oil price shocks. It also represented a realization that the services' budgets had fallen too low in the post–Vietnam War era of the middle and late 1970s. The services lacked the funds to train, operate, and maintain their forces in a state ready for combat, and to procure modern equipment. The budgets of the first Reagan administration (FYs 1982–1985) steadily increased spending by 84 percent, with the FY 1985 TOA of $96.5 billion being the largest ever granted the USAF. These budgets underwrote greatly increased readiness spending and procurement. In the second Reagan and the early Bush administrations (FYs 1986–1991) the USAF budget stabilized (over $90 billion per year) at a robust level and allowed the service to sustain earlier gains. This massive spending, with equally large gains by the other services, may have helped trigger the fall of the Soviet Union in 1989–1991 by confronting the Soviets with the reality that their ramshackle economic system could not compete without radical restructuring.

The Reagan-Bush defense spending rested on large-deficit federal budgets, which the nation could not sustain indefinitely without serious economic harm. With the end of the Cold War, and seemingly, the rationale for maintaining extensive armed forces capable of combating large foreign foes, the Air Force's TOA steadily declined. Beginning with the final year of the Bush administration

and by the close of the first Clinton administration (FYs 1992–1996), Congress and the President had agreed on a scheme of spending discipline that would produce budget surpluses. Part of this compromise resulted in a reduction in defense spending. By FY 1997 the service budget had declined by 20 percent to a dollar level equal to that of FY 1983. If the figures are adjusted for inflation by converting them to constant dollars, the FY 1995 budget shrinks to roughly $48.3 billion FY 1983 dollars and $44 billion FY 1981 dollars.[6] Within a 20-year period, military spending went from one postwar trough (Vietnam) to another (Cold War, Gulf War period).

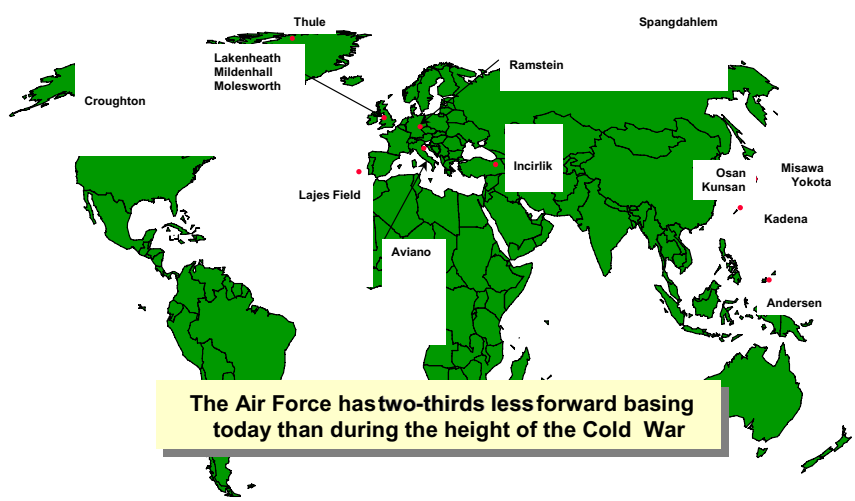
Loss of resources naturally results in a reduced force structure and fewer personnel. From 1991 to 1998 the USAF has seen its total force structure fall sharply from 24 active-duty and 12 reserve fighter wings in 1990 to 13 active-duty and 7 reserve fighter wings. The number of bombers has declined by 50 percent (364 to 182); that of tankers, by 40 percent (531 to 316); and for cargo and transport aircraft, by 25 percent (799 to 628). Meanwhile, the number of active-duty personnel has declined by more than 30 percent for the same period (535,000 to 369,000), a figure smaller than the number of USAF personnel in any year save the one of its founding — 305,000 in 1947.[7] The 1947 figure does not include many U.S. Army members whose functions supported the USAF in 1947 and had to be absorbed by the new service. **Because it had a smaller force in the late 1990s, the USAF needed to develop greater efficiency in managing its remaining resources.**

Overseas Basing during the Cold War

The service's foreign-base structure declined even more precipitately. In Europe and the Mediterranean, the USAF lost two-thirds of its permanent bases in the 1990s. In part this reflected the USAF's and the nation's fiscal constraints. Stationing garrisons abroad costs far more per individual service member than stationing them within the homeland, which contributed to the United States's international balance-of-payment deficits. Diplomatically, the lessening of the number of garrisons improved U.S. relations with the host nations, who often expended large sums in indirect subsidies to U.S. forces and had valuable properties occupied by a foreign power, and whose domestic populations and politics were subject to minor and sometimes major, but always annoying, disruptions owing to a U.S. presence. In the strategic sphere, the demise of the Warsaw Pact, the resulting movement of Russia's threat several hundred miles eastward, and the presence of newly independent Ukranian and White Russian states obviated the need for many of these bases. It eliminated the imperative to support a string of bases for relatively short-ranged tactical aircraft in Western Europe in order to oppose a massive Soviet ground invasion from East Germany. Instead of fighting at the Fulda Gap, the United States might well find itself on the Vistula River or in the Carpathian Mountains. The newest North Atlantic Treaty Organization (NATO) members — Poland, the Czech Republic, and Hungary — had neither the resources, military infrastructure, nor political stability to house U.S. garrisons.

These disbanded airfields had housed forward-based units and ground support equipment and contained prepositioned stockpiles of supplies, equipment,

Overseas Bases in the late 1990s



and munitions for reinforcements and consumption in contingency situations, and they had maintained permanently stationed and appropriately trained garrisons of USAF personnel to maintain necessary functions and perform required tasks. Many of these personnel had their families with them, whose presence supported both their morale and job performance. USAF military and civilian personnel overseas dropped from 132,500 in FY 1990 to 76,800 in FY 1997.

The reduction of foreign basing forced the USAF to adopt a new deployment philosophy. Heretofore, it had moved forward rapidly to well-equipped, ready bases. In the future, although it still must move forward as quickly as possible, it must set up new base structures while transporting much of its supplies, munitions, and equipment from CONUS locations. This fundamental change in the USAF's way of doing business had repercussions throughout the service.

Personnel going on contingency overseas assignments could no longer expect as a matter of course to arrive at a fully working base with forklifts, test equipment, mess halls, adequate permanent housing, hot showers, and cable TV. Instead they may well have to erect their own tents (and know how to do it in advance), consume Meals Ready to Eat, and manhandle large boxes in the freezing cold or baking heat, with only the most primitive recreational facilities available to them and in the presence of an unfamiliar local population. USAF personnel could, of course, make do, but they did not have the basic training in field conditions that would have eased their transition from well-stocked bases to foxholes. U.S. Army and Marine Corps members might well remark, "Welcome to the real world!"

The point was that USAF personnel had not, in the past, expected to serve much of their career under such conditions, nor had they received any but the most cursory training in coping with field conditions. A USMC infantryman finding himself slogging through a jungle after an enemy he never sees, or an Army tanker fighting it out in the sand with a Soviet-built opponent could hardly cry "foul." He either joined his service with the realization, or was soon made aware, that he could expect to confront such a situation at times in his career. Similarly, USAF personnel can and do adjust rapidly to changing conditions and perform well, but they may not reenlist.

The USAF required a methodology to inform its members and recruits of the change in service conditions. This would entail an extensive change in service culture.

In FY 1999 the USAF found itself 1,200 pilots short, with a retention rate of 41 percent, down from 87 percent in FY 1995.[8] As Maj. Gen Donald A. Lamontagne, Commander of the Air Force Personnel Center, stated,

> We've been trying to fix pilot retention with more money but that's not the problem. It's going back and forth to the desert that's causing the problems. So basically what is happening is that we are losing our pilots faster than we can train them. Last year we lost our pilots at a rate of two every day.[9]

The pilot shortage offers an additional example of the difficulty of managing personnel. In the early to middle 1990s, as the service's force structure declined, it appeared that the USAF would have a surplus of pilots. Therefore, to more efficiently employ resources elsewhere, it cut recruitment and the training of new pilots, only to encounter an unanticipated shortfall. The reduction in recruitment had the additional effect of increasing the average age of the USAF aviator, which in coming years would produce further pilot shortages. To man the aircraft in future operations, the USAF would have to use older officers in staff jobs, leaving essential warfighting and support staffs critically shorthanded.[10]

Also by the last years of the decade, retention of senior noncommissioned officers — whose experience, technical training, knowledge, and example form the backbone of the USAF — dropped and stayed below service goals.[11] For example, in a readiness brief to the Secretary of Defense in 1998, the USAF noted that retention of career F–16 maintenance crew chiefs had dropped 5 percent in two years.[12]

In the 1990s the USAF had the highest overall reenlistment of the services: roughly 88 percent to the Navy's 84 percent and the USMC's and Army's 81.5 percent.[13] A significant decline in the reenlistment rate would force the USAF to expend more resources on recruitment, training, and benefits, at the expense of its other obligations. In the service's FY 2001 budget proposal ($71 billion), it already expects to spend as much on people as it does on readiness and modernization.[14] A decline due to the inexperience of less-seasoned employees further detracts from efficient operations by shifting more work to individuals with longer work histories who must perform their own jobs while absorbing the shortfall elsewhere. Nor does the problem seem to be diminishing. An official USAF-wide personnel survey conducted in 1999 showed a slight decrease in overall job satisfaction, and for enlisted members, it showed an average increase of 22 days temporary duty (TDY) per year and an increase in the average work week from 46 to 51 hours.[15]

While the strain of deployment to austere locations and increased stay-at-home workloads provided a significant factor in pushing men and women out of the USAF, the unprecedentedly long and vigorous U.S. economic boom of the 1990s supplied an equal, if not larger, factor to draw them from the service. Not only expanding airlines, which attracted pilots and other specialized personnel, but also the nature of the economic expansion, which emphasized high technology, provided significant incentives in terms of immediate and potential long-term salary and benefits for service members desiring to leave. In 1998 the USAF noted that the projected hiring level of civilian airline pilots per year was more than triple the figure for all Department of Defense (DoD) pilots eligible for separation from their service for every year until 2003, making those military pilots who can separate much more marketable.[16] **The service required a scheme to increase retention.**

In its 225-year existence, the Republic has fought five declared wars, a civil war, and major undeclared wars in Korea, Vietnam, and the Persian Gulf. After

each of these conflicts, save Korea, it ruthlessly demobilized its fielded forces and cut back its military spending. Until the end of World War II, in 1945, this policy achieved surprising success. The United States maintained its wartime gains of territory and internal industrial improvements at a minimum cost. By essentially abdicating its role as a power in world affairs, it allowed the European powers to divide and police most of the globe at their own expense. The two world wars of the twentieth century destroyed the European power system, leaving only two great powers, the United States and the USSR, both of which soon acquired nuclear weapons to become superpowers. The United States, for its national existence, had little choice but to compete with the Soviets. As noted at the beginning of this chapter, this bipolar world survived until approximately 1990. The demise of the USSR left the United States as the world's predominant, but not sole, military power, a circumstance that the declining U.S. defense budgets of the 1990s has diminished but little. Such situations have occurred before, albeit somewhat rarely and fleetingly, in the history of Western Civilization — Macedon at the death of Alexander, Rome at the death of Trajan, and, perhaps, Spain during the reign of Charles V. In the 1990s, the United States could have heeded its usual counsels of abdication and self-absorption or pursued an equally negative and fruitless attempt at hegemony; instead it chose a more moderate course of "selective engagement" in which, with enlightened self-interest, it attempted to manage world affairs for the benefit of itself and like-minded nations while encouraging other states to evolve closer to its own ideals. In 1993, Secretary of Defense Les Aspin defined the Clinton administration's strategy of selective engagement by stating that the United States and its Allies faced new dangers in a new world and that the United States must develop new mechanisms and institutions for effective multilateral action. Consequently, America must field a first-rate military capable of performing a wide range of operations. He added that the new strategy would provide for continued international U.S. political, economic, and military engagement to ensure U.S. influence over the choices and actions of other nations that could affect U.S. security and well-being.

However, Secretary Aspin's overall tenor clearly implied a moderate use of the strategy of engagement. He cautioned that although many opportunities might arise, the nation should recognize that its resources were limited and it should not squander its leadership capital. He immediately qualified this position by calling for the nation's military to have the appropriate capabilities should the President decide to act. Although moderate in tone, the above formulation was broad enough to justify the use of American armed forces in almost any foreign situation.

In the first four years of the Clinton administration, the U.S. armed forces continued three major operations and initiated seven more. The three operations the Clinton administration continued were

> Provide Comfort and Northern Watch (ongoing from April 1991),
> Southern Watch (ongoing from August 1992), and

Restore Hope (humanitarian assistance in Somalia, August 1992–March 1994).

The seven that it initiated were

Uphold Democracy (peacekeeping in Haiti, September–October 1994),
Provide Promise (humanitarian assistance in Bosnia, April 1993–January 1996),
Deny Flight and Deliberate Force (peacekeeping in Bosnia, August–December 1995), and
Joint Endeavor, Joint Guard, and Joint Forge (peacekeeping in Bosnia, ongoing from December 1995).

When completed, the operations in Haiti and Bosnia retained residual forces. The new operations added, sometimes permanently, to the continuing strain of the Gulf deployments.

Long-term foreign deployments interfered with the crucial mission of maintaining the capability to fight and win two major theater wars (MTWs). In April 1998 Secretary of Defense William S. Cohen defined the ability to maintain a two-war force structure as the most demanding requirement for which the U.S. military must prepare. In theory, the defense budget funds a force structure for each service that allows it to meet the two-MTW requirement. This places differing burdens on each of the services. The USAF must support the capability to supply airlift and air transport to the combatant theaters. It plays a significant role in the initial phase of operations in both theaters. In the initial "halt" phase, friendly forces stop the enemy's opening offensive, providing the opportunity to carry out the three subsequent phases: the building up of U.S. and allied combat power in the theater, while reducing the enemy's combat power; the decisive defeat of the enemy; and the provision of postwar stability.

In the halt phase, air power, with its unique attributes of range, speed, flexibility, and precision, will supply a major portion of the available combat strength. For that reason the USAF must sustain the bulk of its forces in combat-ready status.

Unlike other services, the USAF cannot employ a system of tiered readiness in which a service maintains some of its active-duty forces in full, second, and/or third levels of readiness. Upon mobilization — and with the appropriate injections of trained manpower, spare parts, equipment, and time — second- and third-tier units achieve full readiness. For much of the twentieth century all major armed services have used some form of a tiered system, usually supported by conscription. It trades readiness and time for force structure in that it is a more efficient peacetime use of resources. Cadre units cost far less than full-strength, fully ready units. Thus, a service can maintain several cadre units for the price of one ready unit and still, given sufficient warning and time, reconstitute and field the cadre units before combat operations begin. The USAF cannot trade readiness for time because the bulk of its active forces would be needed to deploy immediately in the halt phase of any MTW.

In 1993 the official scenario for two MTWs assumed that both aggressors would commence a short-notice, heavily armored, combined arms offensive against the outnumbered forces of a neighbor. U.S. forces, not initially present in great strength, would have to deploy quickly to the region to supplement friendly forces and to halt and defeat the enemy. It added that if all necessary military program improvements occurred, 10 fighter wings would suffice for a single MTW.

With 13 active and 7 reserve fighter wings in 1999, the USAF could meet the two-MTW requirement, provided it gained a prompt Presidential call-up of reserves.* This leaves little room for miscalculation and Clausewitzian friction. The USAF must conduct adequate annual training exercises and be able to perform multiple contingency deployments while maintaining a high rate of overall readiness. These recurring missions, when combined with the strain of the Gulf and other long-term deployments, stretch the service to the limits of what it can do on a day-to-day basis without placing the two-MTW strategy in jeopardy. In 1998 alone the USAF met the following contingencies:

Engaged in 1,600 exercises in 35 countries
Sent nearly 30 deployments to Bosnia (2,200 sorties)
Made over 95 deployments (27,700 sorties) to the Iraqi no-fly zones
Conducted 30,000 air mobility missions to 90 countries
Flew nearly 100 Denton Amendment† humanitarian relief missions to 30 countries
Participated in nearly 60 counternarcotics deployments to Latin America

From FY 1991 through FY 1998 the overall USAF aircraft mission-capable rate dropped every year for a total decline of approximately 11 percent, with fighter aircraft the hardest hit.[17] **The USAF requires a means to manage its force structure that accommodates high day-to-day operations tempo without placing the two-MTW strategy at risk.**

Changes in DoD planning indicate the increasing importance of military deployments in the engagement strategy of the Clinton administration. In

*The 13 active and 7 reserve fighter-wing force in the planning estimates assumed full-strength wings with three 24-aircraft squadrons each. In 1999 the USAF divided its fighter and attack aircraft (A–10s) into 15 active-duty fighter wings plus 5 additional active-duty wings with at least one fighter squadron. However, some of these wings had only two squadrons and/or squadrons of 18 aircraft each. In total, this force of 51 squadrons equaled the planning estimate.

†The Denton Amendment allows privately donated aid to be carried on DoD aircraft and ships on a space available basis at no cost to the donor. Although initially limited to foodstuffs, clothing, and medical supplies, it has been expanded to include school supplies, textbooks, school buses, computers, and ambulances. Between June 1992 and December 1995, the USAF delivered more than 2,500 tons of such items.

September 1993 Secretary Aspin placed discussion of MTWs before that of smaller scale operations, which he addressed only briefly. Secretary William S. Cohen's April 1998 strategy treated small-scale contingency (SSC) operations at much greater length and placed discussion of them before its discussion of MTWs. It expected the demand for SSC operations and U.S. participation in them to remain high in the next 10 to 15 years, with a consequent strain on both active and Reserve forces, especially in their operating tempo and budgets. It recognized the risk to the two-MTW strategy by admonishing that all U.S. forces should be able to withdraw from SSCs and deploy to a major war on schedule. **The USAF now required a method to plan and execute the smooth transition of its forces from SSCs to MTWs.**

The Persian Gulf Deployments

The Gulf War's legacy, an embittered Saddam-led Iraq, became one cause of the USAF's personnel and readiness problems. Since 1991, Iraq's steadfast determination to rebuild its armed forces and nuclear, biological, and chemical warfare capability in order to dominate the region has compelled the UN to authorize economic and military sanctions against it. Because the Arabic nations of the Persian Gulf lacked the collective military strength to enforce the sanctions, and Iran, potentially the region's strongest power, had its own designs on regional domination, powers outside the Gulf had to assist Saudi Arabia, Kuwait, the United Arab Emirates, and other Gulf states in maintaining the sanctions. The United States assumed the bulk of this burden. Over the decade, Iraq has increased its provocations, necessitating more assistance.

In its turn the USAF bore a disproportionate portion of the U.S. cost. The U.S. Army cannot maintain large ground garrisons in the region because of financial obligations and because the basing of thousands of Americans in these countries might destabilize them. However, the Army has prepositioned in the region equipment that would allow it to deploy quickly in an emergency. Likewise, the Navy does not "home port" large forces in the region, although it regularly stations a carrier battle group in the region. Not only do these circumstances require a disproportionate USAF presence, but the natures both of the sanctions and of modern warfare contribute to the need for a significant aerospace power presence.

At the end of the Gulf War on February 28, 1991, the United States promptly began to withdraw the more than 300,000 men and women, 1,300 combat aircraft, and over 100,000 vehicles that it had committed to the Gulf to roll back the Iraqi invasion of Kuwait.[18] Yet, within less than six weeks, Saddam's actions forced the United States to begin a new effort in the region. By the end of the war, both the Kurds, an ethnic group in the north of Iraq, and the Shiites, a Moslem sect in southern Iraq, had begun open insurrections against the Iraqi central government in Baghdad. The close of coalition military operations against Saddam doomed their attempts to failure, as the central government's

forces harshly extinguished the insurgents. In the process Saddam created refugee problems in Turkey and Iran that led the UN to establish a safety zone in northern Iraq. With the consent of the Turkish government (a NATO and Gulf War ally in the midst of its own serious counterinsurgency campaign against its domestic Kurdish rebels) and at the prodding of its European allies, the United States began a humanitarian relief effort, Operation Provide Comfort, on April 5, 1991.[19] Later that month the coalition established a no-fly zone for Iraqi military aircraft over the northern third of that country. On August 2, 1992, the United States expanded Provide Comfort to include enforcement of the northern no-fly zone and established Operation Southern Watch to enforce a southern no-fly zone covering another third of Iraq. The southern zone included a no-drive zone to prevent deployment of additional Iraqi troops against Kuwait or Shiite refugees in the southern marshes. On January 1, 1997, Provide Comfort became Operation Northern Watch.[20]

The operations consumed a steady stream of USAF aircraft. From 1992 through 1993, the two operations reached a daily average of a little over 100 deployed aircraft. From 1994 to the present, Southern Watch doubled its requirements, bringing the daily average for both to more than 150 deployed aircraft.[21] Turkey placed tight restrictions on the number of aircraft operating from its territory. In March of 1998, 123 aircraft and over 13,000 personnel supported the southern no-fly zone, and 43 aircraft and more than 3,300 personnel supported the northern zone.[22] This number spiked to 250 or more aircraft for punitive strikes against Iraq, as in Operations Desert Strike in September 1996 and in Desert Fox in December 1998. Throughout 1999, USAF aircraft responded with force to Iraqi attempts to target American planes with their air defenses. In scale, this soon amounted to a bombing campaign for U.S. aerospace power stationed in the Gulf. This ongoing combat operation added further strain to USAF aircraft, personnel, and logistics.

The day-to-day drain of steady-state Gulf operations differed substantially from typical Cold War deployments, which were smaller, usually brief, and to well-stocked permanent foreign bases, often manned by USAF personnel stationed in the host nation for two or more years. Gulf host nations did not allow the United States to station its personnel supporting the deployments on their soil for longer than one year per individual. They also limited the number of such individuals to that necessary to man only reduced headquarters and support elements. The personnel conducting the actual operations, the air crews, their support persons, and those needed to augment headquarters and support facilities may only stay on a TDY basis of usually 90 to 120 days per tour for units and 120 to 180 days for personnel augmenting the permanent party. Family may not accompany service members, in part because of the prohibitive expense to the U.S. government, the disruption of normal family life, the lack of suitable family housing and support, and the desires of the host nations. The all-volunteer force, which came into being with the end of conscription in 1973, and its recruitment has raised the ratio of married individuals among the enlisted and

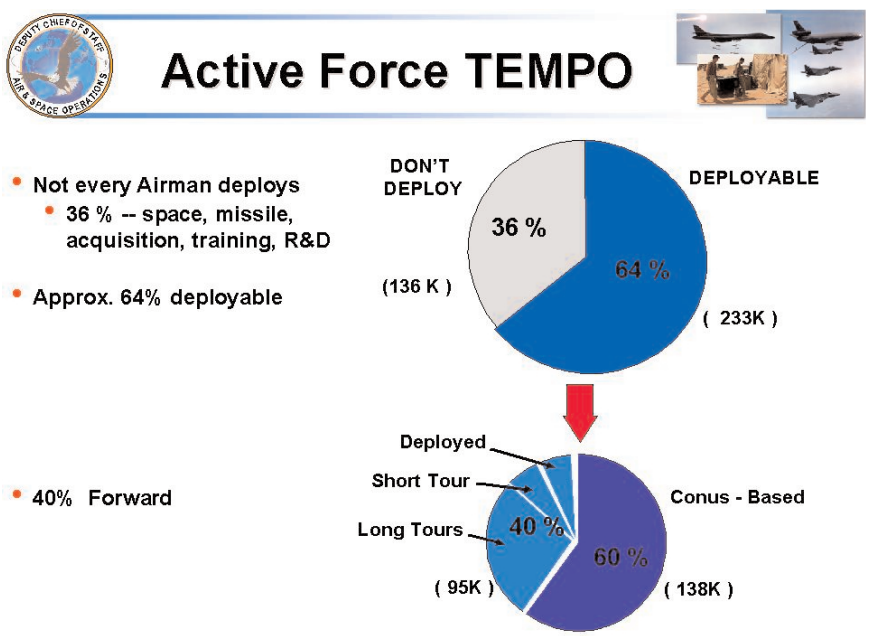
young officer populations as compared to the ratio extant during the Cold War period, further exacerbating the potential for family-related problems. In 1997, 75 percent of USAF enlisted personnel and 85 percent of its officers were married. By 1996, 75 percent of the spouses of enlisted personnel worked outside the home, as opposed to only 55 percent of working spouses in 1985. For the same period, the percentage of working spouses for officers went from 50 percent to 55 percent. According to the 1997 CSAF Quality of Life Survey, 50 percent of airmen "can barely afford living needs."[23] The length of tours, far longer than the week or two spent on a typical training exercise, can disrupt units, wear out equipment more rapidly than expected, and produce family stress for the individuals involved. **The USAF needed to generate a scheme that provided stability and predictability for its service members and their families.**

As a consequence, the USAF attempted to limit the number of overseas rotations a unit and an individual must serve to ideally not more than once a year. However, to achieve this, the USAF had to employ a greater amount of its overall resources to support the deployments. For example, to maintain 166 aircraft and 16,000 TDY personnel in the Gulf, the service must rotate in and out at least four times those numbers of machines and men, putting strain on over 600 aircraft and 64,000 families. The high-alert, high-stress, and combat nature of Gulf sorties limits the normal training cycle for units performing them, and can sometimes result in a loss of proficiency for secondary skills. The constant movement of such forces places additional strain on service airlift capability while expending large amounts of fuel and other resources. Of course, in addition to their time spent on station, units must prepare to leave their home bases and reestablish themselves, shortening their time available to conduct regular exercises and maintain proficiency in critical skills.

While combat units deploy with their assigned air and ground crews, supporting and augmenting personnel have tended to go overseas as individuals to fill empty spaces. For example, instead of sending a complete and already established 13-man team of Security Forces (SF) personnel from a base, which could seriously disrupt base security, the service, as the decade progressed, began to depend more and more heavily on the practice of deploying one or two policemen from several different SF teams from several different bases. This eased the pain on one base at the cost of shifting the shortage more equally to other bases. But the thirteen slots left behind still had to be filled with qualified personnel, or the work had to be performed by other personnel already performing a full-time job, to the detriment of the stay-at-home team's effectiveness. As the decade progressed, this increased the workload and stress on many air occupational specialties. Furthermore, the thirteen disparate individuals arriving in-theater formed a less effective security team because they lacked unit cohesion, did not know one another, and had not trained and prepared together for the unique conditions of their new assignment. Some individuals also tended to assume a short-timer's attitude, calculating that lack of effort in a temporary unit might never catch up to them in their permanent unit.

By the late 1990s, the USAF had established two ongoing programs to manage individual deployments. Palace Blitz provided personnel for short-term assignments of normally less than 120 days TDY, and for unusual or contingency assignments such as replacements for individuals unable to complete their original rotations or for members of an aircraft accident investigation board who might travel to a theater for a brief and limited purpose. Palace Tenure supervised long-term assignments, typically 120 or more days TDY. In and of themselves the programs worked efficiently. They gave most individuals adequate warning of overseas assignments to allow time for them to prepare themselves. These two Palace programs centralized tracking and functions for Air Force personnel managers and supplied the regional CINCs with men and women trained and equipped for their specific tasks.

In fact, the CINCs and their air component commanders soon learned that the systems could be manipulated such that they could write job descriptions applicable to specific individuals. A CINC could state a requirement for an Arabic-speaking intelligence specialist, a description fitting several persons, but if he wanted Col. Joe Smith, and no one else, he might add requirements for skills and experience that only Colonel Smith possessed. While technically not an abuse of the system (because, after all, it gave the CINC exactly what he wanted), it smacked of favoritism and needlessly complicated the supply of qualified personnel. The Palace systems effectively coped with the problem, but in doing so, they perpetuated it by removing some of the urgency behind the development of a more efficient solution.



Nor did the efficiency of the Palace systems guarantee that the men and women caught up in them necessarily perceived that the Palace procedures were equitable or just. Not all service personnel occupied positions eligible for overseas rotation and assignment. As the above chart displays, in 1998, of the 369,000 members of the active-duty USAF (which excludes the members of the USAF Reserve component and the Air National Guard), approximately 36 percent occupied positions not deployable; this portion includes many personnel of the USAF Space Command (SPACECOM), the USAF Material Command, and the USAF Air Education and Training Command (AETC), and occupational specialties such as missile crews, research and development experts, and acquisition specialists. Of the two-thirds of the active USAF eligible to go forward, 40 percent (95,000) were already overseas, most on two-year or longer assignments, and the rest were deployed on one-year or shorter tours. The remaining deployable personnel (138,000) were stationed in CONUS. This is the pool comprising the active-duty individuals and units who had to rotate through the Persian Gulf and other contingencies as well as those that had to answer emergencies beyond the capability of the forces already overseas. Gulf commitments alone consumed nearly half of this pool.

Within the continental rotation pool, imbalances and shortfalls exist within occupational specialties, units, and weapons systems. The Airborne Warning and Control System, the Joint Surveillance and Targeting Radar System, certain intelligence aircraft, and search and rescue helicopters, for example, have severely limited numbers of airframes and aircrews because their specialized electronics and training programs have made them extremely costly to procure and maintain. Yet, the CINCs must have these specialties because the United States cannot conduct effective military operations without them. These sensitive resources, designated Low Density/High Demand (LD/HD) Systems, have their own force-management system, the Global Military Force Policy (GMFP). The GMFP sets limits on the use of these resources. It can only be exceeded by the written order of the Secretary of Defense. Circumstances have forced the Secretary to grant this waiver often. In Kosovo, for instance, the USAF not only deployed all of some categories of its LD/HD assets, it had to close the training pipelines as well to deploy on active duty the instructor crews committed to training. The crews and maintenance personnel of these aircraft serve overseas longer and more frequently than most of their brethren. Other occupations, while not under the GMFP, suffer similar problems. Some LD/HD-like units, like the SF K–9 teams (both dogs and handlers), are in short supply, but they perform a function vital for force protection. The demand for them spurts with each terrorist incident.

In some cases, the Palace systems added their own measure of unfairness. While a single occupation may have members in all of the USAF major commands (MAJCOMs), one or two MAJCOMs may possess a preponderance of individuals possessing a specific skill. Civil engineers, who construct and maintain air bases, have a key role in ensuring that deployments have at least ade-

quate operating facilities. Hence, the combat air forces — the USAF numbered air forces (NAFs) that possess both combat aircraft and combat assignments — and the MAJCOMs to which they belong — Air Combat Command (ACC), the Pacific Air Forces (PACAF), and the U.S. Air Forces in Europe (USAFE) — have generous allotments of civil engineers. In the conveyor-belt process of selecting individuals, it proved easier and less disruptive for the Palace programs to return time and again to the most plentifully supplied source. Taking an individual from a relatively large ACC civil engineering detachment, which might even be overstaffed, caused proportionately less turmoil than taking a person from a small USAF Material Command unit or removing an instructor from AETC. As the decade passed, inequities tended to grow.

Some units and their people suffered from a similar problem. The Iraqi no-fly zone deployments, like other deployments intended for possible military confrontation, consumed fighters at rates higher than those for other types of aircraft, a circumstance that further increased the pressure on the combatant commands. Just as the CINCs had the ability to tailor their request for individuals essentially by name, they could do likewise with specific types of aircraft, almost bringing their requirements to the level of specifying aircraft tail numbers. A unit that could perform distinct tasks well because of its equipment and training — such the precision guided munition (PGM)-capable F–15Es of the 4th Fighter Wing or the suppression of enemy air defense (SEAD) F–16CJs of the 20th Fighter Wing — found its squadrons called upon frequently. From 1993 to 1997, one-third of the service's F–16CJs deployed twice a year, and one-tenth deployed every nine months.[24] The 366th Wing, a composite wing with SEAD- and PGM-capable planes, did not have the ability to split them out as separate units. Because of its structure, it deployed as an entire wing or not at all. Consequently, its personnel were less subject to deployment. **The USAF needed a method to relieve and equalize operations and personnel tempo throughout its force.**

An inability to bring the USAF Guard and Reserve components into the deployment stream heightened the burden on the active force. In 1999 these components manned 35 percent of the Air Force's fighter wings (7 of 20), and by their training scores and performance in the Gulf War they had shown themselves to be equal to the active-duty force. By their nature they also played large roles in the tanker and airlift forces, which could not complete their daily business without Guard and Reserve assistance. The Guard and Reserve had both legal and practical constraints on their capacity to participate in 90-days-or-longer and/or short-notice overseas movements. Other than training at their home base, Guardsmen and Reservists are allowed a block of only 15 days of continuous training per year, with a limited amount of travel time to and from their training location. For Guard and Reserve units to fill a 90-day rotation, they would have had to turn over six times, with each of the changes consuming airlift. CINCs and their air component commanders questioned the utility and expense of a two-week rotation.

Unlike active-duty personnel, Guardsmen and Reservists have civilian employers. These firms and businesses require adequate notice to plan for the absence of their employees who, because of maturity and experience, are likely to hold positions of importance in the company. If allowing outside service became an excessive expense, employers might encourage their resource personnel to selectively place a Guardsman or Reservist in a specific job, or simply avoid hiring them at all. Likewise Guard and Reserve spouses, unlike active-duty member spouses, may have less realization and acceptance of the difficulties of military service, especially on short notice. **The service required a scheme that would integrate the Guard and Reserve components into its day-to-day operations.**

While the service can support the Iraqi no-fly zone deployments and other current contingencies almost indefinitely with its current resources, the necessity to man them at such a large force level places a continuing strain on almost all aspects of the USAF. These requirements deplete much of the excess capacity in the system, leaving fewer resources available for emergencies or other long-term deployments. In effect, long-term SSCs have become a zero-sum game for the USAF. The Iraqi no-fly zone deployments and force-structure declines have stripped most reserve capacity from the USAF active-duty force. Virtually every active-duty unit is already operating at a high rate to accomplish its existing missions. Additional long-term contingency deployments leave the service with little choice but to fulfill any new dictates of strategy by pushing the units even further. That is why the semipermanent peacekeeping deployments to Bosnia, starting in August 1995 (and with some continuing today) and which consume on average a daily total of 50 aircraft and their support personnel, have pushed the service to its limit under the existing systems of force and personnel management. The possibility of additional deployments for peacekeeping in Kosovo, East Timor, and elsewhere may be insupportable without more resources or some disengagement from current operations. One can overrev or redline an engine only so long without precipitating its failure. **The service required a tool to manage and pool all its resources as efficiently as possible.**

In the 1990s, requirements of national strategy and demands of the international situation confronted the USAF with a complex set of interrelated problems revolving around readiness and personnel. The service had to be prepared for or capable of fulfilling on short notice the dictates of strategy across a full spectrum of engagement, from humanitarian relief through SSCs and into two MTWs. People are the bedrock of readiness; hence, the USAF needed to confront and remove or ease any conditions that overstrained its men and women or caused them to leave the service. Specifically, to maintain readiness the USAF needed to

Develop greater efficiency in managing the its resources,
Create a tool to manage and pool its resources,

Produce a method of planning and executing a smooth transition of its forces from SSCs to MTWs, and
Generate a means to manage its force structure that accommodated high day-to-day operations tempo without placing the two-MTW strategy at risk.

To use its people as wisely as possible the USAF needed to

Relieve and equalize operations and personnel tempo throughout its force,
Increase retention,
Inform its members and recruits of the change in service conditions,
Ensure greater participation of the Guard and Reserve in day-to-day operations, and
Provide a scheme that provided stability and predictability for service members and their families.

Although the above problems and their possible solution had profound joint and combined implications, the responsibility for addressing them belonged to USAF. By statute, each military service has the responsibility to train, equip and organize, and field its forces for service within the joint commands.

On August 4, 1998, the CSAF and the SECAF announced that they had approved for implementation a plan that addressed and resolved the above-mentioned issues into the AEF structure within the EAF concept. The next chapter of this work examines the development of that scheme.

3

DEVELOPING THE SOLUTION

For every complex problem there is a simple answer — usually wrong.
Attributed to H. L. Mencken (1880–1956)

AS THE DECADE OF THE 1990s progressed, the USAF and the other armed services lost funding, reduced their force structure, and decreased their personnel end-strength as they responded to the increasing demands of the nation's strategy of selective engagement. The previous chapter detailed the pervasive and interrelated problems the USAF confronted as a result of the imbalance between its diminished resources and expanding responsibilities. This chapter studies the service's efforts to develop methods to solve or ameliorate its difficulties.

The confusion between the terms Air Expeditionary Forces and Aerospace Expeditionary Forces results from their similar wordings and identical abbreviations — AEF. This duplicity of meaning arose as a by-product of the implementation of the Expeditionary Aerospace Force concept. For the purpose of clarity in this treatise, the abbreviation AEF will be used only when an Aerospace Expeditionary Force is meant. The term Air Expeditionary Force will be used when that is the Force referred to. **Air Expeditionary Force and Aerospace Expeditionary Force are not interchangeable terms.**

In its initial development of an expeditionary concept for operations, the service concentrated on the aspect of delivering air power to a CINC. Hence, an Air Expeditionary Force was a USAF aircraft force package deployed to Southwest Asia to plug a shortfall in theater air strength caused by the planned absence of a USN carrier battle group from its assigned station. It consisted of a force of 30

to 40 combat and support aircraft and approximately 1,200 to 1,500 personnel. From October 1995 through February 1998 the USAF deployed six such forces — Air Expeditionary Forces I, II, and III, and three Air Expeditionary Forces led, respectively, by the 4th Fighter Wing, the 366th Wing, and 347th Wing. Since the deployment of the last Air Expeditionary Force, the USAF has discontinued further use of the term and will eliminate it as current terminology from service doctrine and other literature.

As thought progressed on the expeditionary nature of the new environment confronting the service, a means to integrate all aspects of the USAF — air, space, and support — into a new construct became necessary. Eventually, part of the servicewide implementation of the EAF concept resulted in the establishment of ten AEFs and the equal apportionment of the USAF's combat capability among them. Each AEF is an organizational construct consisting of a cross section of the USAF consisting of approximately 175 combat and support aircraft and 12,500 men and women. An AEF does not deploy overseas as a single unit; instead it provides force packages specifically tailored the meet a CINC's precise requirements. It also contains a reserve of aircraft above and beyond day-to-day requirements for use in emergencies. The ten AEFs, deploying in pairs, follow a fixed, 15-month rotation cycle that provides for 90 days liability for overseas deployment followed by a 12-month period of home-station duty and standard exercises. The service has inserted the AEF structure terminology into its doctrine, planning, education, and publications as rapidly as possible.

The First Generation: The Air Expeditionary Force

From 1995 through 1997 the USAF concentrated on one aspect of its difficulties: making its day-to-day operations overseas more efficient. This centered on the development and fielding of aircraft force packages known as Air Expeditionary Forces. That effort was overtaken and subsumed by the realization that the service required a more integrated and comprehensive approach that included all elements of the USAF. The service needed to imbue not only its structure but also its culture and operations with an "expeditionary" mindset that accepted and facilitated frequent overseas postings to austere locations. In doing so it prepared its people and itself for the conditions of the new military paradigm of twenty-first century that abandoned a Cold War mentality to focus on engagement across the full spectrum of military operations.[25] The USAF would change in spirit, if not in name, to an EAF. The EAF concept served as a linchpin for a series of changes. In its most noticeable aspect, the EAF provided the rationale for the division of the USAF's combat and support assets into ten AEFs that differed considerably in form and function from the earlier Air Expeditionary Forces.

Oddly enough, the impetus behind USAF's first steps toward major change sprang not from its own difficulties, but from the similar problems of the USN. In FY 1991 the USN could field 14 carrier battle groups, each consisting of one

carrier and its supporting combatant ships. By FY 1995 the number of carrier battle groups had dwindled to 11. Although this force exceeded the USN's two-MTW requirement of 8–10 carrier battle groups, it did not suffice to cover fully the CINCs' requirements under the strategy of selective engagement. CINCPAC, CINCEUR, and CINCCENTCOM each wanted a full-time carrier battle group presence in his theater. As Secretary of Defense William Perry noted in his Annual Report to Congress in March 1996,

> Maintaining a continuous CVBG [carrier vessel battle group] presence in each theater would require a force of 14 aircraft carriers: current policy however provides for somewhat less than continuous presence in each theater. Thus, a carrier battle group will operate in a theater for part of a year. During the remainder, a CVBG would be a few days away, or tethered to that theater. The current policy of tethered presence is supportable by a force of 11 active duty carriers.[26]

A tethered presence meant that the USN promised to have a CVBG within a stated number of days' sailing time from a theater's required station at all times. The length of the tether varied from theater to theater. Here again the Gulf deployment proved the most expensive. To keep one ship on station, the USN employed one additional support ship for the Pacific station, 5 support ships for the each ship on European station, and an average of 8.5 ships for each ship in the Arabian Sea.[27] In fact, the time length of the tethers and the simple lack of force structure compelled the USN to leave gaps in its coverage or presence within a theater — gaps the other forces had to fill.

As Secretary Perry acknowledged in 1994, as the carrier force declined, other portions of the Navy and of all the other services as well would have to step forward to fill the gaps. In practice this meant the USAF picked up a major share of the responsibility in Southwest Asia. Our Gulf partners, because of their populations' sensitivities to the U.S. presence in their countries, preferred to avoid filling a gap with additional prepositioned supplies or U.S. ground troops or with greatly increased military-to-military contacts. Air exercises with host-nation air forces and additional aircraft brought in for only 30 days or so seemed the most viable alternative. As for U.S. Army air power, helicopters could not operate over Iraqi territory without guaranteed air supremacy, which required an increase in fixed-wing U.S. air power. While the USN and USMC could supply combat air wings, such deployments would strip some USMC units of their dedicated air support or force the USN to field a wing without its carrier. Both services would have to establish a land base with the proper ground support equipment and logistical network — an expensive proposition. Both USN and USMC aircraft, usually of shorter range than their USAF counterparts, required extensive USAF tanker support. Support specially configured for USN/USMC air-to-air fuel delivery was not compatible with standard USAF air-to-air delivery modes. Moreover, reconfiguring tankers made them unavailable for day-to-day

USAF use, placing greater strain on the USAF tanker fleet's capacity to fill its worldwide responsibilities. Therefore, the dispatch of a package of USAF aircraft offered the most efficient solution. These aircraft would not require a new logistical chain nor special tankers and they could operate seamlessly with the other USAF aircraft in-theater.

The task of creating a "carrier gap filler" fell squarely on the USAF Ninth Air Force — the USAF air component in CENTCOM (U.S. Central Command) — and its commander, Lt. Gen. John P. Jumper. The notion of a quick-reaction air power package consisting of several types of planes has been a thread in USAF thinking for at least 40 years and had earlier found concrete expression in TAC's creation of the Nineteenth Air Force in the 1950s. It seems appropriate, therefore, that the planning for gap fillers — planning that evolved into the Air Expeditionary Forces — originated in the successor to TAC, the USAF's ACC. Sometime in the fall of 1994, shortly after assuming command of the ACC's Ninth Air Force, General Jumper had to compensate for a lack of carrier air power. His previous assignment as special assistant to the USAF Chief of Staff for Roles and Missions gave him a unique perspective by immersing him in the difficulties facing the U.S. military in defining its role in the post–Cold War era. The assignment had brought home to him the necessity for change in the USAF's thinking about its traditional tasks.

The USN had scheduled withdrawal of the USS *Independence* from its CENTCOM duty at the end of October 1995. It could not replace the carrier for up to six weeks. This left CENTCOM short of its required air strength and compelled General Jumper to consider some means to temporarily fill this "hole" with USAF assets. This thinking would form the basis of the Air Expeditionary Force concept, the lineal predecessor of the AEF.

A USN carrier wing has a composite structure in that it consists of several different types of aircraft. Its structure enables it to confront a wide spectrum of threats, and its replacement USAF force would have to be tailored to the same capability. The Ninth Air Force calculated it could fill the carrier gap with 36 aircraft: 12 F–15Cs (air-to-air fighters), 12 F–16Cs (precision munition-capable multirole fighters equipped with advanced navigation and targeting pods), 6 F–16CJs (SEAD fighters equipped with high-speed antiradiation missiles), and 6 B–52s (on alert in CONUS). This force structure required a departure from standard USAF deployment routines, which called for aircraft to move forward in their basic combat unit, a squadron (usually 24 aircraft) consisting of the same type of planes. The deployment would also be of short duration, probably no more than 60 days, which for reasons of economy required a small footprint (base and support structure) to minimize airlift and other costs. The Ninth Air Force presented this concept to the Commander of the ACC and to the CSAF, who approved it.

From his position as head of Central Command Air Forces (CENTAF), General Jumper then offered the concept to his CINC, who accepted it and asked for its employment. In due course the Chairman of the JCS directed ACC to

deploy an Air Expeditionary Force to Bahrain not later than October 19, 1995, for a period not to exceed 120 days. After some last-minute changes, 18 F–16s deployed to Shaikh Isa AB on October 28, 1995. Air Expeditionary Force I arrived fully armed and began to fly sorties within 12 hours of its initial landings. It returned to the United States on December 18, 1995. Air Expeditionary Force I deployed 675 people and flew 705 sorties.[28]

General Jumper continued to advocate the widest possible implementation of the Air Expeditionary Forces after leaving the Ninth Air Force to become, respectively, the USAF Deputy Chief of Staff (DCS), Air and Space Operations (June 1996 to November 1997); Commander, USAFE; and Commander, ACC. Of course, General Jumper was not the sole force behind the Air Expeditionary Force. Others also championed the idea. Maj. Gen. Ronald E. Keys, as commander of the 53rd Fighter Wing (the successor to the Air Warfare Center at Eglin AFB, Florida) and as commander of the USAF Doctrine Center (Maxwell AFB, Alabama), helped to popularize the concept and suggested ways to implement it. Also, General Michael E. Ryan, as Commander, USAFE, employed Air Expeditionary Forces for Bosnia and later, as CSAF, would commit his service to a related concept.

In 1996 CENTAF deployed additional Air Expeditionary Forces to Southwest Asia. Air Expeditionary Force II went to the Kingdom of Jordan to cover a carrier gap scheduled for May 14 through June 24. On March 30, 1996, a C–17 load of personnel and supplies landed at Shaheed Mwaffag AB, Jordan, and promptly began to erect a tent city and support infrastructure. More airlift brought in a total of 151 engineering personnel, 88 construction personnel, 51 communications support personnel, and 9 medical personnel. Diversion of airlift to support operations following the fatal crash of Secretary of Commerce Ron Brown's CT–43 and after the humanitarian operations in Liberia (Operation Assured Response) forced rerouting and rescheduling of air transport but did not affect the deployment of Air Expeditionary Force II. Air Expeditionary Force II's aircraft (30 fighters and 4 tankers) landed in Jordan on April 12, twenty-four hours after initial notification. They proceeded to fly sorties in support of Operation Southern Watch within a day. Air Expeditionary Force II deployed 1,238 personnel and flew 918 sorties.[29] On June 28, 1996, Air Expeditionary Force II's fighters returned to the United States.

On April 8, 1996, CINCCENTCOM requested that another Air Expeditionary Force be sent to Qatar to further validate U.S. capability to rapidly reinforce its troops in Southwest Asia. This force would also participate in combined operations with U.S. partners in the Persian Gulf and conduct maritime operations with naval forces in the Gulf. On April 17, the Chairman of the JCS, with the approval of the Secretary of Defense, ordered the deployment of Air Expeditionary Force III to Qatar. The first portion of Air Expeditionary Force III, 12 F–15Cs already stationed in the Gulf, flew into Doha, Qatar, on June 24, 1996. Eight days later, F–15Es and F–16Cs flew from the United States, for a total of 34 fighters, 4 tankers, and 1,200 personnel deployed. The aircraft

from the United States flew sorties in support of Southern Watch the day they arrived. Air Expeditionary Force III conducted a total of 1,367 sorties and deployed 1,050 personnel.[30] In addition to the aircraft in the theater, 3 B–52Hs and 3 B–1Bs were on permanent call in CONUS. Air Expeditionary Force III redeployed to the United States on August 20, 1996. During its stay, it became the first Air Expeditionary Force to stage a Global Power mission when two of its on-call B–52Hs, flying a round trip from Barksdale AFB, Louisiana, dropped 27 Mk–117 bombs on the Udari Weapons Range, Kuwait.[31]

In all, Air Expeditionary Forces I, II, and III performed 13 percent of all sorties supporting CENTCOM during their respective tours of duty. Each left behind equipment and a minimum infrastructure to support a future Air Expeditionary Force. To ease planning requirements, to maintain ties with host-nation armed services, and to lessen family support problems, CENTAF's Ninth Air Force permanently assigned three of its units — the 1st Fighter Wing at Langley AFB, Virginia; the 347th Fighter Wing at Moody, AFB, Georgia; and the 4th Fighter Wing at Seymour Johnson AFB, North Carolina — to supply the core or lead units for Air Expeditionary Forces destined for Jordan, Bahrain, and Qatar, respectively.

CENTCOM planned for two additional Air Expeditionary Forces for Southwest Asia in 1996. It canceled Air Expeditionary Force V, while the fighter portions of Air Expeditionary Force IV were canceled shortly before deployment. The B–52 contingent of Air Expeditionary Force IV became part of Operation Desert Strike, a punitive strike on Iraq in retaliation for its attacks on Kurds protected by the UN. On September 3, 1996, as part of a nonstop flight of 33.9 hours and 13,600 miles, from Andersen AFB, Guam, these bombers launched 13 conventional air-launched cruise missiles against targets in Iraq.

In 1997 CENTAF sponsored three more Air Expeditionary Forces. The first, the 4th Air Expeditionary Wing (4 AEW), led by the 4th Fighter Wing, deployed to Doha, Qatar, from February 19th to June 21st with 1,070 personnel and flew 2,675 sorties. It included the first Air National Guard deployment when 12 F–16Cs of the 169th Fighter Group, McIntyre Air National Guard Base, served from February 19th to March 28th. The 4th Fighter Wing became the first wing to undergo a Phase I operational readiness inspection (ORI) while participating in an Air Expeditionary Force. Because of repeated provocations from the Iraqis, who continued to test the no-fly zone and to harass UN inspection teams, it stayed in position for an extended period. As the second CENTAF-sponsored force, the 366 AEW deployed from September 19 to October 21, 1997. Led by the 366th Wing from Mountain Home AFB, Idaho, the service's only composite wing with fighters, bombers, tankers, and transports comprising its organic structure, it supplied all aircraft, including 2 B–1s (the first deployed to an Air Expeditionary Force location) and 2 KC–135Rs. It went to Shaikh Isa AB, Bahrain, with 1,208 personnel and flew 444 sorties to become the first wing to undergo Phase I and II ORIs while deployed. The 11th Air Defense Artillery, from Ft. Bliss, Oklahoma, became the first U.S. Army Patriot air defense missile battery

to accompany an Air Expeditionary Force.[32] In late 1997 and early 1998 the 347th Wing led the third and last CENTAF-sponsored Air Expeditionary Force to deploy to the Gulf. It included B–52s stationed at Diego Garcia, F–117s in Kuwait, and AWACS and Rivet Joint aircraft, as well as an Army Patriot battery.

CENTAF gleaned several lessons from the expeditionary deployments. The host nations required exact knowledge of what a deployment would bring and how fast it would arrive as well as the extent of its possible participation in any retaliatory or defensive strikes. The lines of authority in connection with Global Power/Bomber strikes needed clarification. Deployments required the highest priority from U.S. Transportation Command (USTRANSCOM). And the time-phased force deployment data (TPFDD) for each deployment had to be completed early and be well thought-out.[33] The TPFDD is part of the Joint Operations Planning and Execution System (JOPES) used to coordinate the transfer of forces between the services and the CINCs.

In retrospect, the Air Expeditionary Forces fulfilled their mission in covering for carrier shortfalls, and they served two additional important functions: first, as a test-bed for expeditionary operations, and second, to focus the USAF on the areas in which it needed to undertake a more systematic and inclusive approach to solving the problems confronting it in the twenty-first century. As case studies in expeditionary deployment, these experiences highlighted several practical difficulties and areas that warranted greater consideration.

Air Expeditionary Force deployments reinforced initiatives that had begun as early as 1989. In that year Lt. Gen. Michael J. Dugan, then the Air Staff DCS, Plans and Operations, sponsored "The Air Legion," a brief presented to the CSAF, General Larry D. Welch, and to the TAC DCS, Operations, Brig. Gen. Michael E. Ryan. The "lean and mean" air legion consisted of a composite force of 120 aircraft that trained together and could deploy on short notice with minimal sustainment.[34] A few years later, the USAF logistical community had begun refine its own operations. In 1994, in response to the changing operational environment and to *Joint Vision 2010*, which specified that "All organizations must become more responsive to contingencies," with less "startup time between deployment and employment,"[35] the USAF had begun to implement the Agile Combat Support (ACS) program. In its broadest definition, combat support is the procurement, maintenance, distribution, and replacement of personnel and materiel. Together, operational forces and combat support create combat capability. Before the 1990s the American armed forces and most other armed services had operated on logistical systems that "pushed" supplies (ordnance, specialized items, or quantities of resources that could not be obtained locally) and personnel (combat units and replacements) from the rear to the combat forces. This required large stockpiles of materiel and manpower in the theater and in supply and personnel pipelines leading back to their points of acquisition. It also rested upon a large system of depots and repair and resupply facilities. This system worked well for the industrialized mass warfare of the two World Wars and the Cold War, but the U.S. all-volunteer force, with a reduced force structure and

military industrial base, could not afford such lavish and antiquated means of operations. As the service noted in 1997, "the Cold War model of globally prestocking high quantities of materiel forward and then flowing equally massive quantities from home bases is untenable in today's environment — politically, economically, and operationally."[36]

ACS sought to institutionalize a new method of doing business in which combat units "pulled" specific resources from the system. In order to get the right item or individual to the right place at the right time, the service had to develop speedy ("high-velocity"), reliable ("high-reliability") transportation and communications systems based on the most modern and appropriate technology available. Instead of a massive and redundant depot and pipeline scheme, an efficient and integrated information system would provide total visibility for assets and could instantly locate required inventory. Depot processes "streamlined and incorporating state-of-the-art business practices" would release the item for transportation quickly. Time-definite transportation would complete the cycle by rapidly delivering the item. All resupply of deployed combat units would follow this "factory-to-flight line," on-time inventory delivery system.[37] The field commander's ability to "reach back" to CONUS was the key to the system. The more efficiently it worked, the less the need for intermediary depots, which reduced the overall logistical structure and the necessity to transport large kits of spare parts and test and ground equipment to forward operating locations (FOLs). This gave deploying units a smaller footprint. More efficient maintenance at the FOL meant that fewer maintenance and supply personnel and their associated personal kit and depot supplies had to be transported to danger areas. This, in turn, allowed for a smaller force to protect a base, which meant fewer SF and less transportation for them. Finally, the savings in airlift and transportation could be applied to ensure time-definite resupply. Such a system was, of course, made to order for expeditionary air operations.

Not only did the Air Expeditionary Force concept encourage reach-back and footprint innovations, its utility encouraged similar thoughts throughout the USAF. In 1997, the USAF Scientific Advisory Board devoted its annual summer study to Air Expeditionary Forces. Refining suggestions from the logistics community, it recommended the development of a small, 250-pound PGM, embedded diagnostics for engines and avionics, and implementation of lean logistics programs. It also proposed that the USAF place high priority on the improvement of the Global Positioning System and other information systems and the integration of geospatial and temporal reference battlespace with USAF platforms, sensors, and weapons systems. The report emphasized the possibilities of "distributed" functions that split personnel, equipment, and duties between various geographic locations — usually between CONUS and the deployment area — but maintained real-time, virtual communications for all parts. The air component commander's headquarters, other management sections, and some medical services offered particular opportunities for "distribution." All of these ideas enhanced reach-back, lessened the footprint, and economized on transportation.[38]

The Air Expeditionary Force concept zeroed in on delivering the optimum force. In doing so it drove much of the remainder of the USAF to examine how it too could engage in expeditionary operations. This was the Air Expeditionary Force concept's most significant legacy. Other portions of the service either employed the Air Expeditionary Force idea or began to modify it for their own interests. In June 1997, ACC and PACAF tested the concept by conducting a no-notice expeditionary deployment of 30 fighter and bomber aircraft based in CONUS to bases in Alaska where they participated, under simulated combat conditions, in PACAF's Cope Thunder Exercise. In September 1997, USAFE exercised the Air Expeditionary Force concept in support of Operation Joint Guard, the peacekeeping operation in Bosnia, with a deployment of F–16s and tankers to Aviano AB, Italy. USAFE also established the 16 AEW to manage expeditionary deployments for Balkan contingencies. In the same year the USAF set up the Air Expeditionary Force Battlelab at Mountain Home AFB, Idaho. The Battlelab, with a planned strength of 25, served neither as a research laboratory nor as an air warfare center; it managed ideas rather than programs or projects. Its tasks were to prove expeditionary operations and logistics concepts; to drive revisions in service doctrine, training, requirements, and acquisitions; and to identify initiatives and innovative ideas that reduced expeditionary footprints and response time or that increased capability and effectiveness. The AETC began to include expeditionary concepts in its Professional Military Education (PME) courses. The Air Mobility Command (AMC) sought to modify the concept to include not just deployments for possible combat operations, but deployments for humanitarian, evacuation, and military operations other than war. Likewise, the USAF intelligence community originated the concept of an Information Air Expeditionary Force to provide presence and accurate, up-to-date intelligence by deploying to a crisis area. In October 1998 at Eglin AFB, the service invested approximately $40 million in staging the first of an intended annual series of Expeditionary Force Experiments designed to test all aspects of expeditionary operations.

The strongest and most lasting feature of the Air Expeditionary Forces lay in the manner in which they encouraged innovative thinking about the USAF presentation of forces to the combatant CINCs. During the Cold War, deployments and exercises usually involved entire squadrons — the basic unit of the USAF — and often entire wings. MTW and the CINCs' contingency plans also specified requirements for entire squadrons and wings. From 1950 to 1990 the USAF had based its logistical and operational planning on the assumption that entire units would go forward and occupy prepared foreign bases to engage in a heavyweight bout against a top-tier opponent. In the 1990s the strategy of engagement resulted in pocket-sized deployments and small residual garrisons at austere locations. This changed the rules. Instead of complete squadrons of a single type of aircraft, operational requirements now dictated the formation of composite packages comprising many types of aircraft able to perform a wide range of tasks. The service had to retain the ability to supply the "big battalions" on short

notice, but on a day-to-day basis it had to give the CINCs aircraft packages specifically tailored to meet specific local conditions.

The Air Expeditionary Force's focus on presentation of forces to the CINCs was, however, its greatest weakness and led directly to its subsumption into the EAF concept and AEF structure. Because of the ACC's concentration on the deployment of combat aircraft, it took the lead in their development. The Air Expeditionary Forces' close identification with ACC led other USAF communities to view it as a scheduling tool primarily for ACC benefit. Given their resource constraints, other MAJCOMs hesitated to invest in something that did not have a direct return. This, in turn, limited the concept's ability to reach beyond ACC to tap support personnel in other commands. In practice the Air Expeditionary Force concept did not appear to have enough breadth to include the entire service. It did not answer the concerns of the Air National Guard and Reserve components. Nor did it relieve personnel tempo.

Its emphasis on and facilitation of subsquadron deployments exacerbated a continuing USAF problem: split operations. When a 24- or 18-aircraft combat squadron contributed 3 to 12 aircraft to an Air Expeditionary Force, its planes going overseas took equipment (including unique ground support and test equipment), spare parts, and a full complement of trained personnel. The deploying portion of the squadron had priority on these resources. It had to maintain the highest possible readiness and mission-capable rates for its aircraft in order to fulfill its potential responsibilities. Such a deployment had an adverse effect on the remainder of the unit at home.

The USAF considered the squadron the basic fighting unit;[39] accordingly, it sized a squadron's basic table of organization and equipment to take advantage of the economies of scale for a unit of 18 to 24 aircraft. A deploying subsquadron element upset this scheme by taking with it a disproportionate share of equipment. It had no choice if it wished to operate at the highest efficiency. The home-station portion of the squadron retained resources sufficient to conduct standard base operations, but it did not possess the wherewithal to conduct an independent deployment, although it could fall in on its forward segment. Thus, the forward portions of a standard-model Air Expeditionary Force (6 F–15Cs, 6 F–15Es, 6 F–16Cs, and 6 F–16CJs) sent to Southwest Asia would consume parts of four different squadrons and leave as many as 72 combat aircraft on home fields unable to move forward for a contingency or an MTW.

A solution to this dilemma would have been to purchase additional sets of equipment and spare parts for permanent placement in forward locations,which tended to defeat the purpose of deploying from U.S. bases to austere foreign locales. Or the USAF could at least purchase equipment sets for semipermanent operations, such as the Iraqi no-fly zones and Bosnia. However, with funding in the midst of a postwar trough, the service simply did not have the dollars to purchase the materiel required. For the same reason, the service could not afford to increase the scale of equipment for all its squadrons such that each portion could go to a different location.

The Air Expeditionary Force also failed to adequately address the personnel and operations tempo problems confronting the USAF. Although the concept gained currency in all MAJCOMs, the deployed Air Expeditionary Forces came from ACC assets, not from the other combat MAJCOMs. By 1997, ACC had designated three of its wings as lead wings for Air Expeditionary Forces. They would organize and coordinate planning and training and would supply leadership for Air Expeditionary Forces headed for the CENTCOM area of responsibility. Given a total of two deployments a year, each lead wing would furnish major support on an 18-month cycle, in addition to elements furnished for regular rotations to Southern Watch and for short- or no-notice "pop-up" emergency contingencies. The innovation eased the supply of forces to the CINC, at some savings to the USAF, but it also enabled the CINC to use such forces more often, probably for a net loss of resources to the service as a whole.

The Second Generation: The Expeditionary Aerospace Force and Aerospace Expeditionary Forces

The first generation of expeditionary thought had created a climate of intellectual foment and challenge as different elements of the USAF expostulated and examined a myriad of new ideas concerning its future. It produced a belief throughout the service that the USAF must fundamentally change its operations, structure, and culture to adapt to the different and difficult conditions of the post–Cold War era. By late 1997 a second generation of expeditionary thought had begun to emerge. This went beyond the provision of force packages to the CINCs

USAF Chief of Staff General Ronald Fogleman fostered one such approach by tasking the newly created Air Force Doctrine Center at Maxwell AFB to embed and thereby formally institutionalize Air Expeditionary Force concepts into official doctrine. The first draft of this effort, "A Presentation of USAF Forces" circulated under the nickname, "the Little Red Book," a reference to the small red book containing the sayings of Chairman Mao and carried by the true believers in China's Cultural Revolution of the late 1960s. The nickname indicated that USAF members realized a revolution, possibly a disruptive one, loomed in operations and service culture. The Little Red Book took a year and a half to become Air Force Doctrine Document 2 (AFDD 2), "Organization and Employment of Aerospace Power." Along the path to final coordination and approval, the document had to traverse a bureaucratic minefield as each MAJCOM had to give its approval, while preserving as much of its own domain as possible.

One example of the travails of the Little Red Book came in the difficulty it encountered in reconciling the differing expeditionary perspectives of two key MAJCOMs: ACC and AMC. Their staffs came to loggerheads over the portion of the Little Red Book dealing with "Air Mobility Integration," or the extent of the control to be exercised by the theater air commander over the AMC units supporting expeditionary deployments.

The April 1, 1997, version of the Little Red Book addressed the matter in two brief paragraphs and a chart. One sentence began the contretemps: "Normally, air mobility forces will be attached to the JFC [Joint Force Commander] with OPCON [Operational Control] or TACON [Tactical Control] delegated to the COMAFFOR/JFACC [Commander, Air Force Forces/Joint Forces Air Component Commander]."[40] This sentence implied, or could be interpreted to imply, that the overall theater combatant commander had direct control of *all* USTRANSCOM/AMC assets within his joint area of responsibility through his subordinate air component commander. The air component commander and his air combat assets were often associated with ACC when they wore their USAF rather than their joint personas. To the ACC staff, the Little Red Book confirmed the traditional doctrine that a combat commander should control all the resources he required to complete his mission efficiently and with minimum casualties. The USTRANSCOM/AMC staff objected. The granting of such a measure of control to each of the geographic CINCs would destroy AMC's ability to function.

A brief explanation of AMC's method of operations is crucial to understanding its position on this and other expeditionary matters. AMC contains over 20 percent of the service's aircraft and active-duty personnel and is the principal component of the joint USTRANSCOM. It supplies airlift, the "transportation and delivery of forces and materiel through the air in support of strategic, operational, or tactical objectives" and provides "air refueling, the capability to refuel aircraft in flight, which extends presence, increases range, and allows air forces to bypass areas of potential trouble."[41] It furnishes intertheater (strategic) and intratheater (tactical) airlift. Intratheater airlift, usually C–130 aircraft, is assigned directly to the CINCs. The turboprop driven C–130s perform this function well because they are able to use short and primitive runways. They do not have the speed, range, and carrying capacity to perform efficiently as long-range transports. Intertheater airlift — consisting of jet-propelled C–5s, C–17s, and C–141s — have much larger carrying capacities and the speed to deliver cargo and forces quickly from CONUS to a foreign location. Although some tanker aircraft are assigned directly to CINCs, most form a pool of refueling aircraft available to service intertheater airlift and combat and support aircraft deploying to exercises or overseas. CINCTRANSCOM controls intertheater airlift and the tanker pool through the Tanker Airlift Control Center, which coordinates and schedules AMC operations. When necessary, he serves as a supporting commander to a geographic CINC engaged in operations.

AMC operates intertheater airlift and the tanker pool much like a regularly scheduled commercial airline. Approximately 60 percent of the combatant forces come from Guard and Reserve components and consequently depend on precise, dependable schedules. A hefty part of AMC's operating budget comes from fees it charges its military customers for transporting items and personnel on a scheduled basis. Hence, its planes seldom fly empty. As does any efficient for-profit transporter, AMC does its utmost to ensure that aircraft returning from

a destination are already loaded when leaving, or else it picks up a load en route. It must service all customers, not just a specific command, in a timely, reliable manner. A disruption of its schedule imposes hardships on its work force and customers.

The necessity to maintain its schedule lay at the heart of AMC's objections to having CINCs control strategic airlift and tankers once they entered the commander's theater. It is an almost immutable law of nature that once a tool is lent to a neighbor, it will neither be returned on time nor be returned in as good a condition as it was when lent. A few transports here, a few there, and soon the U.S. military's global air transportation network collapses. In some cases, AMC must build an air bridge through one CINC's region to reach another. If CINCEUR in Europe controls the AMC assets laid down in his area to support CINCCENTCOM in Southwest Asia, he will have neither the communications net, nor the knowledge of worldwide commitments, nor the expertise to manage his portion of the AMC fleet.

When the staffs failed to agree, the issue reached the two commanders. Generals Walter Kross, AMC, and Richard E. Hawley, ACC, approached the issue with more collegiality and good will than did the "iron majors" on their staffs. Nonetheless, they spent months, including two-on-one private briefings with General Fogleman, to reach a satisfactory solution. At one point General Kross found he had spent so much time at home redacting the text of the agreement that he had to ask for an extension on filing his personal income tax.[42]

The published version of the Little Red Book (AFDD 2) of September, 28, 1998, reflected their compromise. The offending sentence had a single word change — "Normally, air mobility forces…" transmuted to "Normally, *intratheater* air mobility forces…"[43] The two short paragraphs and a chart gained 10 more paragraphs and five bullets (subparagraphs), rearranged organizational chart lines, and stood boxes on end. The additions defined and described the role of the Director of Mobility Forces (DIRMOBFOR), the status of intertheater airlift vis-à-vis the CINC, the command of operations primarily involving air mobility (humanitarian relief and emergency evacuation operations), and the command of air mobility operations external to the joint task force (airlift for other commands). The MAJCOM commands made two significant points. First, USTRANSCOM retained operational control of all air mobility assets within a theater not directly attached or assigned to the joint task force commander. The combatant commander could have the assets he needed to fight and win. Second, the DIRMOBFOR would serve as "*the JFACC's designated coordinating authority for air mobility for all commands and agencies both internal and external to the JTF* [joint task force; emphasis in original]."[44] and "to ensure close coordination with the overall theater air effort the DIRMOBFOR should be collocated with the AOC [Air Operations Center] and the COMAFFOR." The DIRMOBFOR also had the task of coordinating all intertheater air mobility missions with the Tanker Airlift Control Center. While this compromise reaffirmed the COMAFFOR's and JFACC's control of AMC assets supporting the combat

effort, it raised the visibility and status of AMC concerns and the level of an air officer with expertise in air mobility to that of the Director of the AOC, the JFACC's chief operations officer. The elevation of AMC interests within the combatant command would tend to protect the command from excessive and uninformed interference.

This scheme reflected a traditional air power answer to the concerns of both operations and logistics. In 1944 General Carl Spaatz, as Commander, U.S. Strategic Air Forces Europe, had created a headquarters based on a system of dual deputies — one for operations, the other for logistics. General Spaatz used the same theory of equal deputies in establishing the Air Staff in September 1947. In December 1998, during Operation Desert Fox (a series of punitive raids against Iraq), the service tested DIRMOBFOR arrangements, with satisfactory results, by assigning several intertheater air mobility sorties to the tactical control of CENTCOM.[45]

The coordination of AFDD 2 illustrated a few of the hundreds, if not thousands, of procedures and thought processes that the service needed to address before becoming an expeditionary service. Until early 1998 these changes proceeded on an hoc basis, with each USAF organization applying differing degrees of urgency. As the second generation of expeditionary thought emerged, it recognized the need for an overarching expeditionary concept that could apply discipline, standardization, and inclusiveness to service's transformation.

With the abrupt resignation of General Fogleman as Chief of Staff in September 1997, the task of implementing the expeditionary challenge fell to his successor, General Michael E. Ryan. General Ryan had extensive and recent experience as a consumer and provider of expeditionary air power. From September 1994 through April 1996 he commanded NATO's Allied Air Forces Southern Europe and the USAF Sixteenth Air Force. From the former post he directed air operations over Bosnia-Herzegovina, including the punitive strikes that contributed to the convening of the conference that resulted in the Dayton Peace Accords. From April 1996 to October 1997 he served as Commander, USAFE and Allied Air Forces Central Europe, where he oversaw combat operations in Northern Watch, peacekeeping in the Balkans, and humanitarian relief operations in Europe and Africa. On October 20, 1997, he became the USAF Chief of Staff. Two weeks later he attended his first CORONA conference as CSAF.

The USAF schedules formal senior leadership meetings three times a year: CORONA SOUTH, in late winter; CORONA TOP, during the summer; and CORONA FALL.* For three days, the four-star generals of the USAF hold a combination conclave – board of directors meeting where they receive formal presentations (hardly ever delivered by less than major generals) and engage in

*The term "CORONA" purportedly refers to the brand of large cigars that the participants at these meetings smoked, especially during the 1940s and 1950s, rather than to any light reflected from the large number of stars present on the uniforms of those attending.

numerous private conversations. Given the short time available, a strict winnowing process limits items on the formal agenda to those of the highest priority. Time permits for no more than a dozen presentations. During the CORONAs, senior commanders negotiate important issues between commands; attempt to achieve consensus (if not unanimity) on service priorities for programs, spending, acquisitions, and personnel policies; and generally decide on courses of action that the service ought to pursue. As a consequence of these decisions, corporate taskings (work orders) flow from the CORONAs to the rest of the USAF. Action officers on the receiving end of a "CORONA tasker" make the tasking their highest priority.

Not only is the CSAF the first among equals at the CORONA, it is his staff that plans the meetings and controls the formal agenda. The importance and influence of a CORONA varies with the Chief's personal style of management. An active Chief of Staff can use the CORONAs to advance or even impose his ideas upon the entire service. At CORONA FALL, November 5–8, 1997, General Ryan inherited, with little time for modification, General Fogleman's agenda. The conference did not stress expeditionary matters.

General Ryan placed his personal stamp upon CORONA SOUTH at Orlando, Florida, February 24–28, 1998. He put expeditionary air matters at its forefront by personally presenting his plan for the "Evolution of Expeditionary Aerospace Forces" on the conference's first day. "The period of self examination and strategic reassessment must give way to the need to focus on execution of the vision. The first phase of that journey will be the expeditionary Aerospace Force (eAF)." At this initial announcement General Ryan still thought of an "eAF." Within a few days, as the full dimensions of the proposal became clear, it became the Expeditionary Air Force (EAF). The eAF would "enhance the current cohesion and coherence of this movement [toward an expeditionary service] and accelerate our progress in this direction."[46]

He laid down nine specific tasks. Furthermore, he required progress reports on the tasks for the next CORONA, which made meaningful steps toward their accomplishment a high priority for individuals assigned to them. No one wants to present failure at a CORONA. He set four tasks for eAF implementation:

> (1) Develop strategy for an eAF: Capture the relevance of expeditionary capabilities and Air Expeditionary Forces to future USAF and national strategy; develop organizational and strategic basing plans.
> Assigned to the Deputy Chief of Staff, Plans and Programs (AF/XP).
>
> (2) Educate for an eAF: Incorporate into initial/refresher training and education programs, Air and Space Basic Course, PME, and AFIT [Air Force Institute of Technology].
> Assigned to Air Education and Training Command.
>
> (3) Train an eAF: Propose methods for Combat Air Forces to provide the most effective expeditionary training and packaging —

composite training, exercises, and inspections.
Assigned to CAF/MAF [Combat Air Forces/Mobility Air Forces].

(4) Equip an eAF: Pursue key air and space technologies and refine procurement methods to make the force lighter, leaner; more efficient, effective, and agile.
Assigned to Air Force Material Command.

He ordered the AF/XP to track and coordinate the implementation of the eAF initiatives. Next he set out the five Air Expeditionary Force tasks.

(5) Enhance support for Air Expeditionary Forces and operationalize C^2/reach-back initiatives: Identify and rapidly incorporate relevant capabilities and CONOPs [concepts of operations].
Assigned to Air Force Space Command.

(6) Develop Air Expeditionary Force deployment CONOPs: Make deployments more responsive and efficient; reduce required lift and processing time; enhance en route support; assure sustainment lift.
Assigned to CAF/MAF.

(7) Develop Agile Combat Support CONOPs for Air Expeditionary Forces: Reduce footprint, enhance effective sustainment process.
Assigned to DCS, Installations and Logistics (AF/IL), and DCS, Air and Space Operations (AF/XO).

(8) Develop Air Expeditionary Force contingency employment CONOPs: include use of Air Expeditionary Forces on various missions and deployed force protection.
Assigned to CAF/MAF.

(9) Develop CONOPs for Air Expeditionary Force integration into OPLANs [operations plans]: incorporate Air Expeditionary Forces into CINC OPLANs and TPFDDs.
Assigned to CAF/MAF.

General Ryan specified that the AF/XO would track and coordinate implementation of the Air Expeditionary Force initiatives as well identify and assist in the resolution of intercommand issues.[47] This presentation served as the launching pad for all subsequent EAF and Air Expeditionary Force implementation.

Two days later General Ryan introduced the EAF to the public in a speech at the annual Air Force Association (AFA) *Air Warfare Symposium* held in conjunction with CORONA SOUTH. The AFA is the nation's largest and most influential private group of air power supporters. After stating, "We must focus our efforts on developing the process, the structure, the procedures, and most importantly the mindset to be expeditionary," he defined EAF:

> It means having a force that is fully capable of utilizing the unique aspects of air and space power — range, speed, flexibility and precision to their fullest capacity. Not where we live, but where we are needed. Not when we can, but when we must.
>
> It means having a force that is light, lean, and lethal.
>
> …
>
> Most importantly, being expeditionary means having a force that is mentally prepared, procedurally sound, technologically advanced, appropriately organized, adequately supported and competently led.

Then he cleared up a small mystery, his preference for the word "aerospace":

> You'll notice the growing use of the word aerospace. I prefer the aerospace force to the air and space force because it captures the seamless nature of the vertical dimension and highlights that it is one environment. Because of our commitment to integrate all the elements of aerospace power, I am not satisfied that the only thing that holds air and space together is a conjunction. As the young sergeant said in the film earlier, "Space is just a little higher."[48]

From that point onward the USAF has referred to an Air Expeditionary Force as an Aerospace Expeditionary Force. Within a few weeks the two concepts became greatly different entities, as the gap-filler package turned into just one of many capabilities of a force composed of several USAF elements. As General Ryan observed in January 1998:

> I have heard the lament that, "the Air Force is not what it used to be during the Cold War," and I must tell you that is absolutely true; this ain't our fathers' Air Force.[49]

Upon his return to the Pentagon, Lt. Gen. Lawrence P. Farrell, Jr., DCS, Plans and Programs (AF/XP), ordered his staff to begin work on General Ryan's first task, insertion of EAF into the national security planning structure and development of eAF organizational and strategic basing plans. Work began on March 5, 1998.[50] By mid-March 1998 the Air Staff had organized an integrated process team (IPT) to carry out the CORONA directives requiring its attention. The IPT consisted of members of the XP Directorates of Manpower, Strategic Planning, and Programs. Members from the DCS, Air and Space Operations (AF/XO) joined by March 17. Officers from the DCS, Installations and Logistics (AF/IL) also attended. As usually happens with committees, the bulk of the work soon devolved upon those with the most organizational or personal commitment. Brig. Gen. Charles F. Wald, Director Strategic Planning and Policy (XPX), and Brig. Gen. Joseph H. Wehrle, Jr., Director Programs (XPP), and their principal action officers for eAF, Lt. Col. David K. Barrett and Maj. Richard S. Haas, assisted at times by Brig. Gen. Larry W. Northington, Director Manpower,

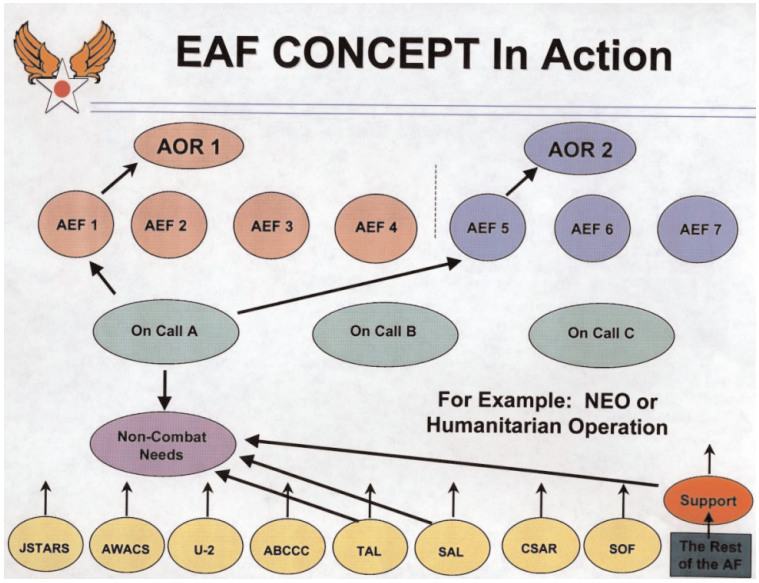
Organization, and Quality (XPM), and Col. Michael Copeland, finalized the IPT's work and submitted it to General Ryan.

The eAF IPT accomplished several tasks. It determined that the USAF had already made important steps in institutionalizing eAF into the service's security strategy. The then-current USAF strategic plan designated eAF as a "thrust area" — an area of critical importance — and defined it in an instruction to the service. "Be an expeditionary aerospace force — Provide the ability to rapidly initiate and sustain operations anywhere in the world." The Foreword to Volume I of the USAF Strategic Plan noted, "An expeditionary aerospace force leverages *Joint Vision 2010*'s operational concepts by fully exploiting Air Force core competencies and air power's inherent speed and flexibility in support of the joint force." The Air Force Posture Statement for 1998 added, "We are institutionalizing this expeditionary mindset within our Service's culture by emphasizing the fundamentals of expeditionary warfare in our exercises and training."[51] The USAF needed to insert eAF into major DoD documents such as the National Military Strategy and Defense Planning Guidance and into the DoD Planning, Programming, and Budgeting System.

The creation of an organizational and strategic basing plan proved more difficult. On April 2, 1998, Generals Wald and Wehrle presented their first iteration of such a scheme to General Farrell for a "vector check" (approval that they were proceeding on the correct path). They had divided the USAF's combat units and aircraft into ten AEFs.[52] These ten numbered AEFs greatly resembled gap fillers. AEFs 1 through 4, consisting of 96 aircraft each, would serve 90-day rotations in Southern Watch; AEFs 5 through 7, comprising 42 aircraft each, covered Northern Watch with 120-day deployments; and AEFs 8 through 10, with 77 aircraft each, including bombers on alert status in CONUS, would stay on-call for 120-day periods to satisfy emergency and pop-up contingencies. One active-duty base, which usually contained an active-duty fighter wing, would supply the "lead" (a leadership element with overall coordination over deployment and training) for each AEF. At any one time, 215 aircraft were on-call or deployed forward. This met the historical average of 210 USAF aircraft annually employed in SSCs and pop-up contingencies.[53]

The AEFs consisted of "shooters" (bombers and fighters) only. They did not include any aircraft designated for national air defense because such planes, older production blocks of USAF aircraft, lacked the capability to serve overseas. These LD/HD units, Special Operations Forces, and strategic and tactical airlift and other support aircraft would operate normally or would augment the AEFs for humanitarian, information, or evacuation AEFs.[54]

This division of labor rested on three key assumptions. USAFE and Seventh Air Force would cover Bosnia and Korea with aircraft already in Aviano, Osan, Kunsan, and Kadena ABs. The 10 AEFs did not include these planes. Bosnia averaged only 14 aircraft, because weakening the Far East for deployments elsewhere involved too great a strategic risk. In mid-May 1998, General Ryan modified this by directing that the aircraft devoted to Bosnia be rolled into the AEF



deployments.[55] The AEFs would take maximum advantage of the "Total Force" by including both Guard and Reserve components. This would provide limited operations and personnel tempo relief for active duty forces, while providing the reserves with up-to-date experience. Finally, the AEFs could and would be organized on a "virtual" basis, without physically reassigning and consolidating their units. DoD could not physically move units or functions without gaining congressional approval of a new Base Realignment and Closure (BRAC) Commission. Not only did this seem highly unlikely, but Congress had already forbidden minimal reassignments of functions, even in actions involving as few as five persons, without its express permission. These assumptions remained intact throughout the EAF implementation process.

The first implementation trial balloon also tackled what would prove to be one of the most complex problems in making an expeditionary USAF a reality: the sourcing of support personnel to AEFs. Sourcing is the process of selection for the deployment of specific personnel and/or equipment and units. When the eAF IPT added up the support personnel figures for Southwest Asia and Bosnia, the total showed that each operations billet required five support billets. The 1,218 operations personnel of each Southern Watch AEF required 6,343 support personnel, of which 4,260 would rotate through every 90 days.[56] Of that 4,260, SF, necessary for force protection, supplied 909; civil engineers, needed to maintain and construct facilities, provided 726; munitions handlers, 660; and 108 other Air Force Specialty Codes (AFSCs), the remaining 2,075 bodies.[57] The IPT recognized a mix of several options for getting the annual TDYs of supporting personnel to less than 120 days and for reducing the burden on stay-at-home bases. It suggested increasing the use of Reserve component personnel as

deployers and backfill for home bases; switching deploying billets to permanent change of station billets and other increased host-nation support; contracting out additional base operating support at home and abroad; adding manpower to AEF units; and allowing the stay-at-homes to eliminate their lowest priority tasks.[58]

General Farrell approved the briefing, and one week later General Wald presented it to General Ryan. In that intervening week, the IPT changed many details, but it left the basics intact. It added some further recommendations. The EAF's ("eAF" became "EAF" during the week) place in the USAF command structure needed refining. How did the IPT relate to NAF staffs and higher organizations? The EAF needed to be incorporated into the CINCs' war plans. The service should establish a public relations plan to sell the EAF concept. Finally, to set the stage, the CSAF should select a target date for EAF implementation and instruct ACC and the Reserve components to take the lead in creating the initial schedule.[59]

On April 9, 1998, during the course of the Wald briefing and immediately afterward, General Ryan made substantive changes to the proposed structure of the 10 AEFs. He vetoed the idea of different sized AEFs and differing rotation lengths. He did not want to create the perception that since some AEFs were bigger, they were more desirable for either prestige or career reasons. He didn't want "first-string" and "second-string" teams.[60] Differing tour lengths could only foster resentment and add to the hardships of those with longer times abroad. Having two families side-by-side in base housing with the military spouse in one family away 90 days a year (with a large AEF), and in the other house, the spouse gone 120 days (with the half-sized AEF) did not seem like a recipe for an equitable distribution of labor, hardship, and pain. Likewise, for home-based personnel in the same occupation category, some might have to work overtime or double shifts for a month longer than the person next to them.

General Ryan's critique apparently rested on the belief that the high personnel tempo sustained by the USAF was the root cause of its current difficulties in recruitment, retention, and morale. Easing the burden on the service's men and women and their families by supplying predictability of deployment scheduling and limiting temporary forward postings to no more than 90 days a year would solve much of the problem, or at least make it bearable. The CSAF gave evidence of his belief within less than two months of assuming his post. On December 11, 1997, he issued a special interest Notice to Airmen on retention that announced

1) A 5-percent reduction in USAF and joint training exercises for the next two years,
2) A 15-percent cut in service personnel supporting Chairman of the Joint Chiefs of Staff exercises,
3) Termination of Quality Air Force Assessments,
4) A 10-percent reduction of the length of inspections and the number of inspectors used in ORIs for FY 98 and an additional 20-percent reduction for FY 99,

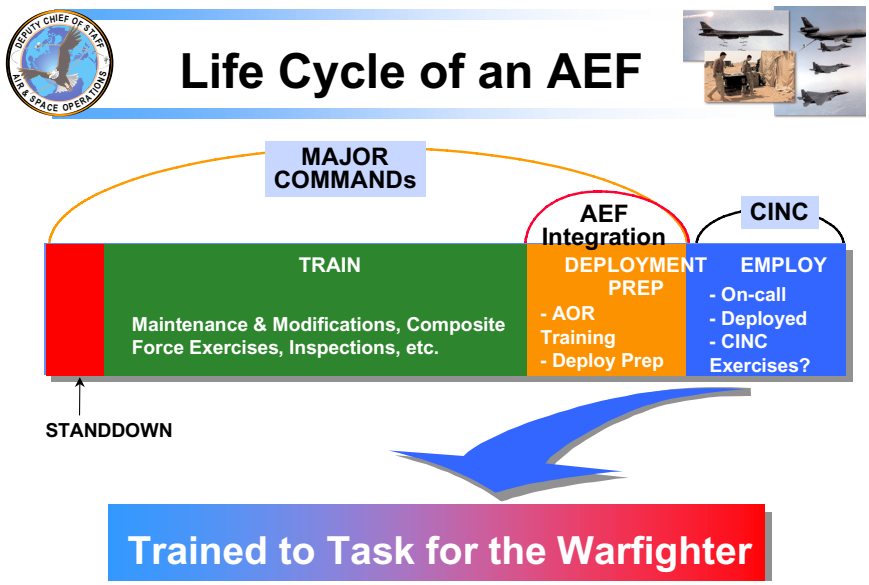
5) Combining inspections with real-world deployments, and
6) Improved training for those deployed to Southwest Asia.[61]

These actions reduced USAF personnel tempo.

The next iteration of EAF conformed more closely to General Ryan's views. It retained 10 AEFs but created all with approximately equal capability, the minimum capability needed to man Southern Watch. Because not all USAF assets could be divided equally by ten, the aircraft composition of individual AEFs varied. All AEFs deployed for 90 days and did so by pairs: one AEF for each Iraqi no-fly zone. All AEFs would have support aircraft (tankers, tactical airlift, and combat search and rescue) as well as combat aircraft assigned directly to them. In addition to the non-AEF scheduled forces locked down for Bosnia and Korea, the new plan called for air defense units, also excluded from AEFs, to handle U.S. Southern Command's requirement for six fighter aircraft for counterdrug operations. The revised plan called for more consideration of an organizational structure that managed overall AEF deployments and addressed the place of the AEFs in the command structure. Should the AEF "flag commander" also be the base wing commander? What AEF responsibilities belonged to the NAFs? Did the AEF operations require a "tactical air control center–type" oversight institution?[62] The EAF IPT had raised the last question in its initial meetings but had not included it formally in the brief until now.[63]

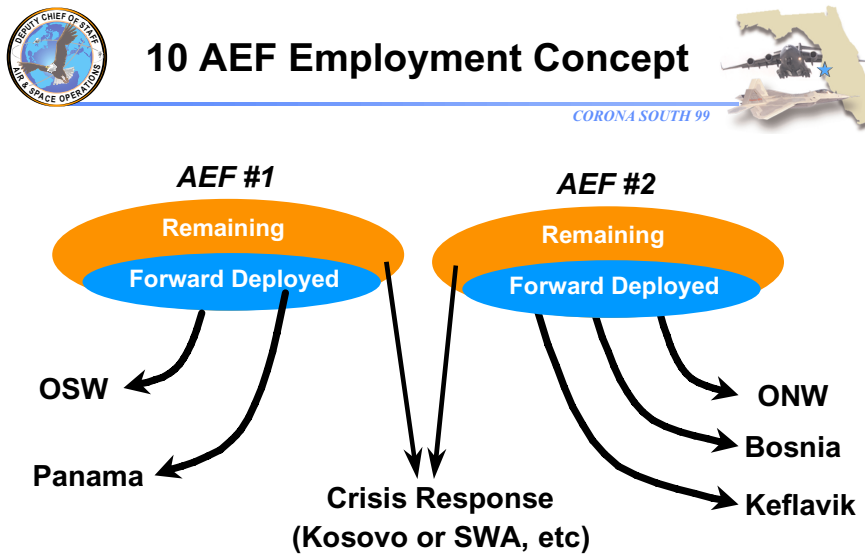
This draft fixed the concept of five pairs of AEFs deploying for 90 days as part of a 15-month-long schedule — the so-called 10/15/90 deployment schedule. That schedule made it feasible to make the promise to the USAF that most personnel would not spend more than 120 days TDY a year, and it supplied the much needed stability and predictability to deployments. One overseas deployment every 15 months plus the standard annual TDYs for exercises and training should not exceed the set limit. A 15-month schedule had the added benefit of insuring that the same pair of AEFs did not always deploy for the Thanksgiving and Christmas holidays. After the first 15-month rotation cycle, the AEFs in each pair would switch deployment areas so they could familiarize themselves and their personnel with the differing condition at each location. Since the Northern Watch AEF deployed fewer aircraft forward, the switch in location also evened the forward versus on-call burdens for each AEF's personnel and their bases. In order to ease the burden on airlift resources, the start and completion times of each AEF's rotation was slightly staggered. Rather than two AEFs moving back and two going forward simultaneously, within each pair of AEFs, one would initiate movement up to 15 days before its partner moved, which spread the transport requirements over a longer and therefore more manageable period.

The 15-month schedule had other implications and applications to the daily lives of the airmen. Although the cycle revolved around overseas rotation, when implemented it would establish a new rhythm for training and preparation. Before going overseas, units and personnel would have a period to spin-up, or prepare. On their return, they would have a short standdown period to address



family matters and other business issues that may have arisen in their absence. A reconstitution period followed which allowed maintenance of equipment, installation of modifications, and rectification of any other problems incurred during deployment. If possible, units would exercise with other components of their specific AEF to enhance teamwork and cohesion. PME and other out-of-unit training could be planned for the periods between rotations. The fixed schedule facilitated efforts to inculcate EAF into service operations, structure, and culture; for as long as the Iraqi no-fly zone deployments were necessary, on-call AEFs disappeared. However, each pair of AEFs "in the box" (deployed) had a considerable reserve capacity available for emergency contingencies. For a crisis in Southwest Asia, the remainders of squadrons involved in split deployments could fall in on their deployed elements assigned to the AEFs. In addition, each AEF had a bomber squadron (B–52s or B–1s) and a number of B–2s and F–117s on-call in CONUS. In a pop-up crisis those aircraft could either deploy forward or fly round-trip missions from the United States. If a crisis exceeded the capabilities of two AEFs, a circumstance that had not occurred since the Gulf War, then the next-most ready AEF or AEFs could be called. Once a situation reached that level, any deployment system would probably give way to a CINC's MTW operations plan. As each AEF briefing stressed to its audience, AEFs eased the steady-state day-to-day tempo, but in wartime, all guarantees were off until peace returned.[64]

The EAF concept could not succeed if it did not solve the tempo problems of the many men and women assigned to AEFs as support personnel. Aircraft, their crews, and their direct maintainers came in a complete package from their units, and other personnel necessary to run a base could come from the same units, but



as noted earlier (p. 23), the USAF had become accustomed to filling most of these positions through a system that deployed individuals taken from a pool of suitable and eligible positions. When the newly selected individuals went forward for TDY, they left their regular job unfilled, which forced stay-at-home personnel, who did not usually have a temporary replacement, to pick up the slack.

By the start of May 1998, the EAF IPT had gathered enough data on USAF manpower to suggest possible solutions for the expeditionary combat support (ECS) problem. In theory, each AEF could move forward to four bases: two existing, or fixed, bases, such as Incirlik AB, Turkey, and two "warm" bases consisting of little more than a runway and potable water. Each fixed base needed 300 support personnel from an AEF, and each warm base required 1,000. Thus, to support its four bases, one AEF required 2,600 support personnel (2,000 for two warm bases, plus 600 for two fixed bases). A deploying pair of AEFs required 5,200.[65] The USAF had a more than sufficient pool of properly trained and eligible-to-deploy personnel to meet the 15-month total of 26,000 (5 x 5,200) sent abroad in blocs of 5,200 for 90-day rotations. Raw numbers did not answer the equally important questions: Where would the 5,200 personnel come from every 90 days? and Who would do the work they left behind?

The Reserve components stepped forward to fill 10 percent, or 520, of the AEF positions per rotation. This left 4,680 billets for the active-duty forces to fill in the AEFs, and the same number of empty positions left behind. The EAF IPT offered three options: 1) consolidate all AEF support personnel on one base; 2) draw all AEF support personnel from the 10 lead bases; or 3) draw all AEF support personnel from the 29 bases supplying AEF operational personnel. The first

option simplified the problem of sourcing personnel, since they were all in one place and ready to go. Overstaffing the stay-at-home requirement by 20 percent eliminated the need for backfill personnel. It also increased support-unit cohesiveness and augmented the concentrated tempo. Concentrated tempo relieved the rest of the USAF, yet it still limited the rotations for personnel going forward to less than 90 days a year. Even in the unlikely event that Congress would have approved such a shift in basing, Option 1 cost too much. It required additional military construction for dormitories, family housing, and other facilities; it drove personnel inefficiencies; and it concentrated tempo by making the same people rotate time after time, rather than spreading the pain throughout the force. Concentrating tempo obviously had both its up and down sides.

Option 2, sourcing the AEFs' ECS requirement from the ten lead bases, had the advantage of taking support and operations personnel from the same unit, thereby increasing unit cohesion. It also limited sourcing locations to ten bases, which again simplified the process. This option offered much the same advantages and disadvantages regarding concentration of tempo as did the first option. However, taking 2,340 support personnel all at once from a single base would seriously hamper its ability to do business. Alternatively, the base could supply 648 people every three months. In either case, the base's empty positions, minimally 648 at all times, would require additional stay-at-homes over and above the base's regular complement. More people equaled additional military construction and presented an appearance of overmanning, difficult to justify to the accountants in DoD and in Congress.

Option 3 distributed the requirement over all the 29 bases responsible for meeting the AEF quota, that is, that each deploy 161 support personnel at all times. This approach cost the least in dollars and spread the pain most evenly, but it lessened unit cohesion and increased sourcing problems.[66] A fourth option, doing nothing and continuing to grab individuals on an ad hoc basis from the USAF's 67 major bases (all bases with more than 1,000 personnel), was also considered.[67] This final option perpetuated the current unsatisfactory conditions. The EAF IPT recommended adoption of Option 3.[68]

Whatever solution the service pursued, it needed 4,680 personnel to backfill for personnel going overseas. The Reserve components promised to fill 2 percent, or 94, of the billets. On-call contracts, such as contracting with a local companies to bring in additional bus drivers or food service personnel, could fill 5 percent (234 billets). The remaining 4,352 positions had to come from some combination of outsourcing and privatization to the civilian sector; from personnel at non-AEF bases; and from consolidations or headquarters reductions.[69] The service could have added the positions to its end-strength, but such a move faced an almost certain thumbs-down from DoD and Congress. Making the best of the circumstances, General Ryan pledged to take the personnel "out of hide" rather than to ask for an increase in personnel.

In conclusion, the IPT noted the need to focus its short- to medium-range efforts on fleshing out the proposal. The Reserve component contributions

required final approval. AMC, ACC, and the Reserves needed to establish an initial schedule. It also had to assess the "logistics tail" associated with AEFs and to provide and size a planning cell for each of the lead AEF bases. The planning cell would serve, in part, as a connecting link between the AEFs, the Reserves, and NAFs.[70]

The early May iteration went to General Hawley, the ACC commander, on May 8, 1998, and to General Ryan, for his review, on May 13, 1998. Although General Hawley found some of the thinking too much like the "inside-the-Beltway" mentality, he supported much of the concept presented by the EAF IPT. As was to be expected from the commander of ACC, he praised its presentation of forces to the CINCs and its rotation schedule. He suggested that the concept needed more understanding and support (buy-in) from the CINCs and the Office of the Secretary of Defense. And he wanted further background work on the testing of a recently developed ACC automated scheduling tool and on the assignment to AEFs of units and aircraft, most of which belonged to his command. He expressed concerns that the concept would break a promise recently made by the service to ACC pilots that their overseas TDYs would last only 45 days and that, while 10 AEFs sounded good in Washington, that number would cause scheduling problems in the field. The Air Staff promised to scrub their plan and assess whether the scheduling concept was executable before the year 2000.[71]

General Ryan's second review of the EAF IPT's work resulted in further refinement of the EAF concept. Whereas ACC had believed the AEF schedule was "too inflexible," the CSAF stated that inflexibility was the goal in this case because it supplied predictability and stability for personnel. Instead of an ad hoc reaction to each change in circumstance and requirement, the proposed schedule put the USAF in charge of its own fate. At this early stage of EAF formulation, Ryan still conceived of AEFs as units that required organized leadership and cohesion. He suggested naming the AEFs after important figures in American military aviation, for example, James H. Doolittle, Carl A. Spaatz, Henry H. Arnold, and William Mitchell. In looking at the current iteration of EAF, he asked rhetorically, "Where's the leadership?" He instructed the IPT to organize the AEFs around a leadership core consisting of a general officer with a staff.[72]

In examining the problem of the distribution of support personnel backfills, the CSAF rejected all four options presented to him, and he formulated a new one: Option 2A. Some support cadre, such as policemen, firefighters, civil engineers, and medical personnel, worked in teams, whose efficiency and safety depended on their unit cohesion — bonds formed from mutual training and shared experiences. To maintain these bonds, such personnel needed to go forward as existing teams. Many other AFSCs, like computer technicians, transportation services, and supply, did not require such a degree of cohesion. General Ryan responded to these different circumstances by suggesting the consolidation of AEF support teams at the ten lead bases, from whence they could go forward as a whole, while picking up the "cats and dogs" from all 29 AEF bases.[73] Option 2A linked operations and key support personnel, focused on unit cohe-

sion, provided a large population base for other support, and simplified sourcing. It concentrated the need for outsourcing and privatization. It still had the drawbacks, though to a lesser extent, of apparent overmanning and a potential cost for new military construction.[74]

Backfills for the SF offered a particularly knotty problem and illustrated the strain placed on the service by the combination of rising demand and decreasing resources. The service's decline in retention had reduced the SF's overall manning to 92 percent of the level authorized. The manpower shortfall hit the lowest ranks the hardest, that is, those personnel most likely to be patrolling a fence at night or manning a gate or providing cadre for an antiterrorist team. In some cases the SF retention had fallen to 60 percent. Even at full strength, the active-duty and reserve SF had only 16,350 deployment-eligible positions, of which the AEFs required 9,000. Remaining permanent overseas bases and requirements consumed many of these leftover positions. In addition, every overseas incident, such as the Kobar Towers bombing in Saudi Arabia in 1996, increased Congress's, the CINCs', and local commanders' demands for greater force protection. However, the training pipeline, with an annual capacity of 3,500, had already begun to run dry. Sending extra police teams to the 10 lead AEF bases would leave potentially dangerous shortfalls and overworked comrades behind. Although the IPT could offer no satisfactory solution to this situation, it noted that the SF had set up the 820th SF Group, a small team of 80 personnel, to be the first-in SF in overseas contingencies. Perhaps the 820th could be greatly enlarged to serve as an SF provider for AEFs.[75]

Upon conclusion of the review, General Ryan ordered the IPT to continue to inform the USAF leadership on the latest EAF progress and to prepare to take the briefing to the CORONA TOP scheduled for mid-June 1998. Furthermore, he expressed his concern that the AMC had not yet been brought onboard.[76] His need to ensure AMC participation would eventually result in a heightened profile for AMC within the EAF concept.

The EAF concept's next major decision point came at the CORONA TOP held June 17–19, 1998, at Randolph AFB, Texas. EAF and AEF affairs dominated the conference, which devoted the first day and a half of its open sessions to those two topics. All the MAJCOMs presented their progress on General Ryan's tasks given the previous February. General Farrell gave two significant briefings: one on strategy, capabilities, organization, and basing, and on the work of the EAF IPT; the other on EAF impacts and the effect of EAF and AEF initiatives on the service budget and other service programs.[77] In addition to instructions to continue ongoing EAF/AEF efforts, the conference produced six more corporate decisions:

> Identify Roles and Responsibilities at Air Staff, MAJCOM, NAF, and Wing Levels Across the AEF Life Cycles (e.g. Employment, Standdown, Reconstitution, Training, Integration, Deployment).
> Assigned to CAF and MAF.

Develop a Global Expeditionary Aerospace Policy and Using That Product, (1) Define the Process to Identify Future AEF Composition (Mission and Support) and (2) Schedule AEF elements.
Assigned to ACC.

Draft Package for CSAF That Charters an Expeditionary Aerospace Force/Air Expeditionary Force Steering Group to Spend Next 18 Months Coordinating the Air Force Transition to This Operational and Organizational Concept.
Assigned to DCS, Air and Space Operations (AF/XO).

Conduct Historical Revue [*sic*] of AF Contingency Deployments to Determine How Employment of New AEF Construct Could Have Effectively Met CINC's Requirements and Better Controlled TEMPO.
Assigned to DCS, Plans and Programs (AF/XP).

Develop a Plan for Spin-up Training of AEF Forces Prior to Their Entry into Deployment Window, Including Both Support and Operations Forces Necessary to Cover Full Spectrum of Crisis
Assigned to CAF.

Compare AF TEMPO with Other Services' TEMPO Burden, Including Time Away from Home, Forward Based Presence, Presence at Contingencies, etc.
Assigned to AF/XO.[78]

The historical review of deployments and the comparison of service tempo burdens would serve as internal and external justifications for the EAF/AEF. The identification of roles and responsibilities of USAF management elements to the AEFs and the plan to create specific training tailored to the area of deployment further defined the place of AEFs within the service's structure. The task of developing a Global Expeditionary Aerospace Policy reflected the USAF's requirement for a DoD-recognized and DoD-approved overall force and personnel management policy equal to that already possessed by the USN. Such a policy would secure the EAF/AEF's position within the USAF and DoD hierarchies. Lastly, the chartering of an Air Staff entity to coordinate an 18-month transition to the EAF/AEF concept set a deadline on implementation of no later than January 2000 and gave the Air Staff the prime role in overseeing that implementation. When taken in their entirety, the new decisions meant that the USAF had decided to adopt the new concepts as thoroughly and rapidly as possible. Having made the decision to implement an EAF, the service began to promulgate it and gain outside approval. In July 1998 it presented its thinking to the Secretary of Defense, the Chairman of the JCS, the CINCs, and important national legislators. General Ryan shared his intention to announce the EAF publicly and begin the first AEF deployment by October 1, 1999.[79] These briefings produced no significant objections. Indeed, their positive reception indicated a

general appreciation for the USAF's innovations and willingness to tackle the problems it faced.

The implementation date of October 1 meant that General Ryan would have the EAF in place before the expiration of his first two-year appointment. While he could reasonably expect appointment to another term, the fate of two of his immediate three predecessors indicated he had no guarantee of completing a full two-year assignment or of bringing the EAF to complete fruition on his watch. So on August 4, 1998, General Ryan and Acting SECAF Peters held a joint press conference to announce EAF implementation.

The work of the previous eight months had developed solutions to many of the problems faced by the service. Some difficulties, like the NCA's decision to employ military force abroad, lay beyond the USAF's control. Others, such as the nature of the AEFs' leadership and their place within the USAF structure, needed more consideration. At best the USAF had achieved an 80-percent answer. Rather than delay implementation for many months in order to arrive at a complete answer, and in the process possibly miss the opportunity to establish EAF at all, the service chose to continue institutionalizing its new reforms.

4

IMPLEMENTING THE SOLUTION

Our experience with AEFs has convinced us that such forces are a far superior way to respond to crises and that we should move forward from ad hoc forces and command and control structures we have used in the past.

F. Whitten Peters, Secretary of the Air Force, 1997–2001

FROM THE PUBLIC ANNOUNCEMENT of its intention to implement the EAF concept on August 4, 1998, through the standup of ten AEFs and two AEWs on October 1, 1999, the USAF sought to put in place a set of structural, cultural, and operational reforms designed to change it from a service constructed to meet the demands of the Cold War and a strategy of containment to one built around the needs of a new millennium and the requirements of a strategy of selective engagement. The process of implementation involved the unraveling of several sets of interrelated problems: an AEF's command structure, the overall management of AEFs, the initial number of AEFs to field, and the ways and means of supplying combat support personnel to the AEFs. In the midst of this effort, the EAF concept encountered its most serious obstacle: the USAF's participation in the NATO bombing campaign against the Republic of Serbia, Operation Allied Force.* That campaign was the first to attempt and the first to succeed in using air power alone to force a sovereign nation to submit to the diplomatic demands of its foes. However, by the very nature of the task, USAF participation, as opposed to that of the other U.S. armed forces, reached the level

*The official NATO terminology for the bombing of Serbia was Operation Allied Force. USAF terminology for its units participating in the action was Operation Noble Anvil.

of an MTW. It appeared at first that the stress of that effort threatened to throttle the EAF at birth. Instead, the Kosovo crisis became the proof of the concept, and it established EAF as the correct course even more firmly. This chapter examines the implementation of the EAF concept and AEF structure from the creation of an Air Staff entity to oversee the process, to the deployment of the first pair of AEFs to their stations abroad.

The Initial Implementation Process

In a corporate decision taken at CORONA TOP, June 16–19, 1998, the USAF instructed the Air Staff's DCS, Air and Space Operations (AF/XO) to "Draft Package for CSAF That Charters an Expeditionary Aerospace Force/Air Expeditionary Force Steering Group to Spend Next 18 Months Coordinating the Air Force Transition to This Operational and Organizational Concept."[80] On August 13, General Ryan directed his deputy for Air and Space Operations, Lt. Gen. Marvin R. Esmond, to establish the Directorate of EAF Implementation "to provide policy, guidance and provide oversight as the HQ [Headquarters] USAF point of contact for all EAF implementation activities."[81] On the same day, the service announced the appointment of Maj. Gen. Donald G. Cook, commanding general of the Twentieth Air Force, as the directorate's head. General Ryan had handpicked Cook for the post, in part because of his background. General Cook, who joined the USAF in December 1969, had spent the first twenty years of his career in SAC, flying more than 3,300 hours in B–52 bombers. Upon SAC's merger with TAC to form the ACC, Cook's career path had taken him first to command a wing in the USAF's AETC, and then to USAF SPACECOM, where he successively headed two strategic missile wings and served as director of operations in SPACECOM headquarters. Cook had also served his time in the Pentagon, including 15 months as a division chief for the DCS, Programs and Resources, one year as the USAF representative to the House Armed Services Committee, and a year as the head of the SECAF'S Senate Liaison Office. Perhaps, equally important was the general's lack of experience in ACC and AMC, the two USAF MAJCOMs most affected by the transition to EAF. He could act as an "honest broker," but should the implementation fail, the general was, as he jokingly noted of himself, "expendable." As a measure of the importance of Cook's task, General Ryan accorded him a relatively unique privilege: direct access on EAF matters.[82] This meant that General Cook could take any important EAF issue straight to the CSAF for discussion and decision without going through the regular chain of command, a measure that shortened decision times and bypassed bureaucratic objections and delay.

Within two weeks General Cook developed the plan that served as the structure of his new command, the Directorate of EAF Implementation. It would have four divisions. Two transferred intact from the Directorate of Operations and Training (XOO): they were the War and Mobilization Plans Division (XOPW) and the Regional Plans and Issues Division (XOPX). In addition to its regular

mission of providing wartime contingency planning policies and guidance, the XOPW had the important task of developing the interface between EAF and the Joint Strategic Planning System. If the service could not create an efficient system of presenting its forces to the CINCs that was compatible with the joint process, then the CINCs might not support the EAF and thereby destroy the rationale for its existence. XOPX served as the Air Staff focal point for the CINCs' operational plans and their relationships with foreign political military organizations, such as NATO. It had the expertise to ensure that the AEFs meet the CINCs' requirements.

The third division, Strategy and Doctrine Concepts (XOPS), came from the Directorate of Command and Control (XOC). It coordinated USAF concepts on air power with the other services, the Joint Staff, and the President's National Security Council. It had access to the important defense publications, for example, the DoD annual report, joint publications, and national strategy and planning guidances. It could assist in inserting EAF into these arenas.[83]

The fourth division, the Division of EAF Implementation (XOPE), was a new entity, a tiger team — a team of specialists created to fulfill a specific short-term task or function — formed from four billets from the AF/XO and 14 additional billets from 10 other Air Staff organizations. It had the function of implementing the EAF concept "by developing policy, guidance and providing oversight of all USAF EAF implementation efforts." Its five key tasks were

> Develop the USAF's EAF Implementation Plan
> Develop an EAF White Paper
> Develop a Global EAF Policy (GEAFP)
> Develop an AEF AFI [Air Force Instruction], and
> Articulate the EAF Concept to audiences ranging from national leaders and commanders at all levels to airmen, marines, sailors and soldiers in the field.[84]

It also had a "sundown clause": by January 2000 it would go out of business and return its billets to their owners. The XOP began operations on September 9, 1998.

When Col. Robert R. Allardice, Chief of the War and Mobilization Plans Division, briefed his staff in early September 1998 on their new position within the AF/XO hierarchy, he remarked, "I pity the poor SOB who gets the Implementation Division." In looking over the implementation timeline and the magnitude of the task, especially from the planning perspective, he believed the new man would be "handed an impossible task." A week later as he walked down a Pentagon corridor, General Cook stopped Allardice and told him that he had picked him for the job. Colonel Allardice recalled, "I was kind of shocked." But after an instant's reflection, he told the general, "I would have made the same choice."

Colonel Allardice was a logical selection. General Cook had a career outside of ACC and AMC, and his deputy director, Col. Mark L. Jefferson, had an ACC

background, while Colonel Allardice had spent his career in AMC, accumulating hundreds of hours piloting multiengine jet transports. He also had extensive experience as a planner and in the joint world, including analyzing and writing the Desert Storm lessons learned for CINCEUR.[85] Since Allardice already worked for Cook, he was readily available. Moreover, he had a reputation as an original thinker who did not hesitate to challenge current ways of doing business. Colonel Allardice approached implementation as a planning problem.

XOPE's personnel represented a cross section of the USAF. In addition to specialists in operations, planning, and logistics, the division had experts in communications, SF, personnel, manpower, public affairs, medical affairs, space, programming, acquisition, command and control, and the Reserve components. It further reflected the USAF's pilot shortage in that only three of its eighteen members had aeronautical ratings — Colonel Allardice; his deputy, Lt. Col. David K. Barrett, also an AMC veteran; and Maj. Thomas J. "Ernie" Eannarino, an F–15E Weapons System Officer. The relatively low number of rated officers also reflected an appreciation that XOPE's greatest efforts would come in integrating the service's support areas rather than integrating aviation into the EAF concept. The team's cross-functional composition gave it not only a deep reservoir of expertise concerning all aspects of the service, but also the ability to rapidly plug into or contact the portions of a service community most affected by various implementation initiatives and issues. The individuals on the team usually had planning experience, and many had already served as their organization's liaison person with or had been its representative on the Air Staff EAF IPT. As a group, they probably had a greater knowledge of the EAF and its implications than any organization in the USAF.

Their shared goal, which had the public support of the highest levels of their service, and its importance, which was perceived not only by themselves but was also acknowledged by their peers, fostered the usual advantages accruing to any action team: great unit cohesion, high individual self-esteem, intense motivation, and belief in and dedication to the group's ideology. The team's sundown clause recognized the inevitable decline in importance of any tiger team, once it had reached or, alternatively, obviously failed to achieve its goals. The sundown clause further forced the team to pass the torch, or ownership for the EAF concepts, to the permanent portions of the service that would have to integrate them into the organization.

Within three weeks, XOPE had prepared an implementation plan. It tracked EAF initiatives and the service components having primary and collateral responsibility for them throughout the service.[86] For example, the Air Staff DCS, AF/IL had the lead in developing strategic basing concepts, while the MAJCOMs and two other Air Staff DCSs had to supply unique information and expertise to the primary office. While this plan served as a preliminary guide, it could only map, not solve, any problems encountered on the journey.

The establishment of XOPE completed one of the three major tasks assigned

by the service leadership at CORONA TOP '98. The other two — creation of a Global Expeditionary Aerospace Policy and definition of AEF's roles and responsibilities — would take longer to accomplish.

The first task ordered ACC to develop a Global Expeditionary Aerospace Policy and to use that policy, first to define the process of identifying future AEF composition, including both combat and support forces, and second, to prepare and schedule the initial 10 AEFs through a 15-month deployment cycle. The new construct would emulate the USN's Global Naval Force Presence Policy (GNFPP), which set up an annual Secretary of Defense–approved employment and deployment schedule for the USN's carrier battle groups and the USMC's expeditionary units. In peacetime the GNFPP limited the maximum commitment of all U.S. naval combat forces available to all the CINCs to approximately 20 percent of the USN's strength. More forces could only be requested and used by the CINCs with the express permission of the Secretary of Defense. The USN used the schedule as its basis for rotating elements of the fleet through its system of tiered readiness, from active-duty deployment, into standdown for training and refit, and back to full readiness. Although the USAF, as discussed earlier, could not use a tiered readiness concept because of its immediate heavy commitments at the beginning of any possible MTW, the idea of a high-level policy that regulated the amount of force structure the service was obliged to make available for annual deployments had an obvious appeal.

The second remaining EAF task from CORONA TOP '98 ordered ACC and AMC to identify the roles and responsibilities of the Air Staff, the MAJCOMs, the NAFs, and the wings throughout the phases of an AEF's life cycle: through employment, standdown, reconstitution, training, integration, and deployment.

On August 11 and 12, 1998, ACC had held an EAF implementation planning conference at Langley AFB that centered on issues addressed by the global EAF force policy and on roles and responsibility taskings. In assessing the EAF force policy, the study group in charge noted that while the policy would ensure sustainment of the EAF concept, it was not necessary for EAF implementation. They further observed that the lack of any formal document "which defines the EAF and the composition and capabilities of an AEF" greatly hindered the writing of such a policy.[87] By mid-September, XOPE stated that, in its opinion, the EAF global force policy "is dead — not needed and [has] no relationship intended for EAF."[88] XOPE reasoned that the policy put "the cart before the horse." The CSAF should ask the Secretary of Defense for a force policy after, not before, implementation had taken place and after the service had demonstrated that it had made a meaningful effort to solve its problems.[89] This line of thought prevailed, and by the end of September 1998 the service had apparently decided to shelve work on creating an EAF global policy. However, the rest of the task, creating and assembling the first round of AEFs, continued.

Even as it considered EAF global policy, ACC began to create the AEFs from their component pieces: aircraft, units, and support personnel. After thoroughly

analyzing and comparing his inventory of combat aircraft to the current requirements of the CINCs, General Richard E. Hawley, the ACC commander, concluded that in the short term he could not field 10 AEFs of roughly equal capabilities. Although he hoped to reach the 10-AEF goal in the future, he directed his staff to prepare a new structure for the first AEF rotation cycle.[90] He proposed a construct of nine AEFs that would deploy only to existing contingencies, such as the no-fly zones, plus one on-call AEF that would supply pop-up and new contingency deployments. The nine AEFs would deploy for 90 days each across a schedule of 13.5 months. Instead of deploying in pairs, individual AEFs would go overseas in an offset fashion; one AEF would go forward every 45 days. The on-call AEF would consist of two approximately equal parts which would alternate 90-day tours in an on-call status.[91] Called the 9+1 formula, the major advantage of this approach was that it provided a workaround for the two "showstoppers" capable of preventing the fielding of ten deployable AEFs: adequate SEAD for all forces and split operations.

The reasoning behind the 9+1 formula reflected existing shortfalls that could only be cured by additional resources. The most critical shortage was the lack of aircraft and pilots equipped and trained for SEAD. In modern air warfare, any force package containing nonstealthy aircraft* would require an escort of SEAD aircraft in order to accomplish its mission with acceptable losses. According to ACC's calculations, if the USAF wished to retain its SEAD units on a fixed rotation schedule, it had enough such aircraft to cover the needs of only nine AEFs, with sufficient resources left over to escort an on-call force.

The split-operations capability that the original AEF structure — known as the stacked 10 — required of the existing squadrons added a further difficulty. Squadrons would not only have to supply a force for a scheduled SSC, but they might well be called upon to supply a second forward force to respond to a new crisis. Although some squadrons had done this in the past, in theory the stacked-10 format required that all fighter squadrons to be able to support simultaneous flight operations at more than one forward deployed location. The strain of maintaining just one forward location and the home station had already stretched the service's resources. ACC believed its units could not routinely support two forward locations. The service possessed 33 active-duty F–15 and F–16 squadrons available for assignment to AEFs. Of these squadrons, 23 were independent and could, with moderate strain, deploy to one forward operating location, while maintaining adequate readiness for the portion remaining at its home base. On occasion they could send forward a second force, at the cost of pulling personnel and equipment from the entire wing and forcing stay-at-homes to work 12-hour days. The AEF concept would make this expedient unworkable because it assigned the personnel in each of a wing's two or three squadrons to

*For the USAF, this meant any force package not consisting entirely of F–117s Nighthawks or B–2 Spirits. In other words, well over 90 percent of current USAF strikes require SEAD.

a specific AEF. They could not go with a second forward force without breaking the EAF concept's promise of stability and predictability. Moreover, with current manning, the service could not simultaneously conduct split operations and reduce personnel tempo.[92]

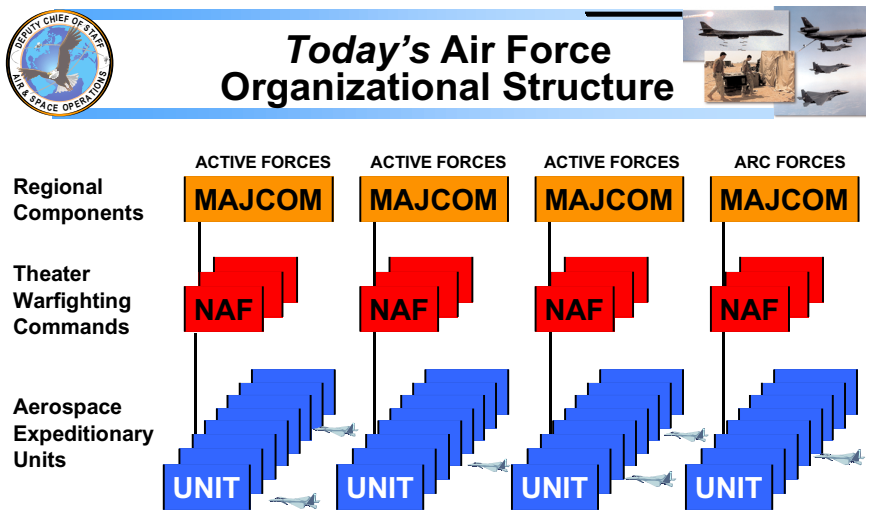
Nine squadrons were dependent, that is, they lacked the normal complement of specialized and regular maintenance equipment and personnel supplied to independent squadrons.* None of the 33 squadrons could routinely support operations from three locations (one at home and two overseas) with its current standards of equipment. In an MTW, a dependent squadron could easily deploy with its assigned wing or another wing of like-type aircraft.† It could not deploy by itself nor provide part of a force package for an SSC because it lacked sufficient support equipment. Six of the dependent squadrons served on bases with wings of like-type aircraft; the remaining three belonged to the 366th Wing at Mountain Home AFB, Idaho.

Unlike the 12 other USAF fighter wings which consisted of one or two types of fighter aircraft, the 366th was a composite wing with bombers, tankers, transports, and fighters, and each of its three fighter squadrons had different aircraft: F–15Es, F–15Cs, or F–16s. It had enough equipment to support each squadron but little capacity (because of the difference in types of support equipment) to deploy a subsquadron package without seriously lowering the readiness of the portion of the squadron not deployed. It deployed either by entire squadrons or not at all. This circumstance made it suitable to serve as one of the two on-call portions of the "+1" AEF that would back up the nine AEFs with a solid punch for emergencies. General Hawley presented the 9+1 to the Air Force leadership at CORONA FALL '98 held October 6–9 at the Air Force Academy, Colorado Springs, Colorado.

On the morning of October 7, General Hawley also briefed the service's leaders on "EAF Command Relationships, Roles, and Responsibilities." Since the AEFs formed an entirely new and different structure, whose forces cut across traditional MAJCOM boundaries, their place within the service command and management hierarchies required defining. Once an AEF stood up, its units would form an entity whose lines of control ran horizontally across the boundaries of different MAJCOMs and NAFs. This contradicted the traditional vertically structured chain of command. The command and control of AEFs under-

*In addition to the three squadrons of the 366th Wing, the other dependent squadrons were the 14 FS (Misawa AB), 12 FS (Kadena AB), 421 FS (Hill AFB), 54 FS (Elmendorf AFB), 79 FS (Shaw AFB), and 523 FS (Cannon AFB). As part of this initiative, 55 FS (Shaw AFB), designated as a training squadron and assigned to the 20th Fighter Wing, the USAF's only four-squadron fighter wing, received funding for equipment to make it viable during the deployment of the wing's other squadrons.

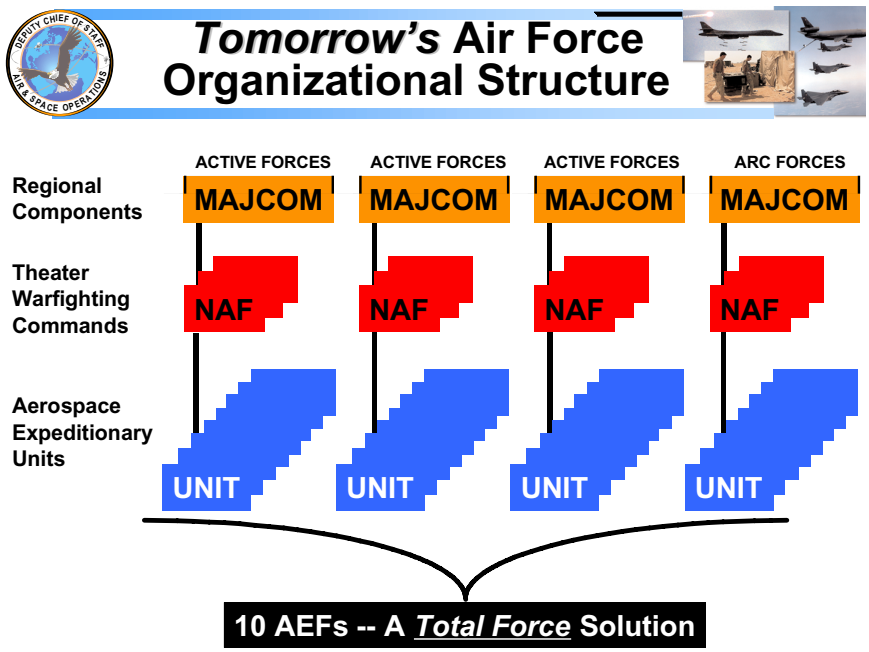
†"Like-type aircraft" are aircraft of the same mission, design, and series; for example, F–16CG Bloc 50s — F–16Cs of production block 50, capable of delivering precision guided munitions.



NAF = Numbered Air Force
ARC = Air Reserve Component (Guard and Reserve forces)

went considerable revision during the implementation process. Beginning with its first iterations of the AEF in March 1998, the Air Staff EAF IPT identified each AEF with a lead base, which, in almost all cases, had an active-duty wing composed of fighter aircraft as its main tenant. Most of the wings belonged to ACC, but each formulation also included wings from PACAF and USAFE. By May1998 the EAF IPT envisioned that each AEF would have its own commander. USAF wing commanders with units in an AEF would report to the AEF commander (AEF/CC) who, in turn, reported to the CINC.[93] This, however, was a notional planning concept rather than a firm decision. Also at about this time, the EAF IPT added 100 slots to the EAF manpower request in order to provide each AEF/CC with a 10-man planning cell dedicated solely to tracking and coordinating the training, readiness, and overall status of all units in an AEF.

ACC and General Hawley added substance to this planning. During their normal annual training cycle or in a deployment, when USAF units passed to the operational control of the CINC, the established chains of command needed no changes. But during an AEF's spin-up, new relationships emerged that required an AEF/CC and some type of centralized AEF management focused on AEF unit readiness and training. The AEF/CC coordinated an entity of different units from different commands and ensured that it deployed trained and equipped for the task. The AEF/CC, who was also the commander of the USAF wing designated as the AEF lead wing, served as the focal point for an AEF's identity and cohesion. The USAF lead wing commander of an on-call AEW served as the



AEW commander. The AEF and AEW commanders had coordinating authority and direct liaison authority* with the units of their force, but they had no other command authority until directed by JCS orders. They would exercise their functions only in the 60-day period before deployment when an AEF was preparing to go overseas and was polishing its theater-specific training, or when an AEW was entering on-call status.[94] The AEF/CC did not have court-martial authority, and the service never made a final decision on the rank, whether major or brigadier general, appropriate for the commander's position.

The AEF/CC seemed to occupy a position long on responsibility and short on authority. Because of this, the service eventually dropped the idea of designating an officer as an AEF/CC. Instead it placed the responsibilities for an AEF's training and preparedness on the lead wing commander. This was another reason an AEF was an entity rather than unit — it had no designated commander.

The AEF central management function tracked and coordinated training and it monitored the readiness of all the AEFs throughout their 15-month cycles. When problems arose, AEF central management would serve as the focal point for their resolution. It would also ensure that AEFs completed tasks that might

*Direct liaison authority, or DIRLAUTH, is that authority granted by a commander (any level) to a subordinate to directly consult or coordinate an action with a command or agency within or outside of the granting command. It is a coordination relationship, not an authority through which command may be exercised.

not be included in routine training, like landmine awareness or unique theater requirements. AEF central management would also act as a corporate memory for AEF deployments by collecting "lessons learned" from each deployment, and it would supply a team of expert consultants to each AEF to help it organize and prepare for its tasks. This would minimize the energy wasted on "reinventing of the wheel" for each deployment. Finally, the AEF management would coordinate the "AEW playbook" between AMC and the CINC's air force commander. The AEW playbook was a preplanned air bridge from CONUS to the CINC, which AMC would activate if it became necessary to bring forward the on-call AEW. When fully functional, AEF central management would ease the AEF preparation burdens, especially those on the lead wing. The members of the central function would form two AEF preparation teams, each working with an alternate pair of AEFs, starting from the beginning of a pair's 60-day predeployment and working through its 90-day deployment and the month after its deployment.[95] General Hawley offered four options as to who should operate the central AEF management function: the Air Staff's DCS, Air and Space Operations; a NAF headquarters; a single MAJCOM (ACC); or the lead unit's MAJCOM.[96] As he had indicated earlier to the CSAF, Hawley strongly favored placing the AEF management staff in ACC.[97]

EAF matters again dominated the agenda of CORONA FALL 1998, consuming three of the six open sessions.[98] The senior leadership reluctantly accepted 9+1 as a temporary solution, but its members indicated their desire to move ahead as soon as possible by ordering XOPE "to develop and present a plan to fix shortfalls allowing transition from interim 9+1 to [a] permanent 10 AEF employment schedule." They further directed that the Air Staff's DCS, Plans and Programs "develop a plan to add one additional SEAD-capable squadron."[99] A new SEAD squadron would remedy one of the principal deficiencies obviating 10 deployable AEFs.

In addition, the leadership accepted General Hawley's plan for AEF oversight by directing him to establish the function — designated "the AEF management staff" — at ACC headquarters. By January 1999, the projected AEF management staff had grown to 100 personnel. Its staff members also asked ACC to further refine the AEFs' roles and responsibilities and present them at CORONA SOUTH '99.[100]

After yet a third briefing by General Hawley on how to spin up training for AEFs prior to deployment, the USAF senior leadership engaged in an extended discussion on manpower for AEFs. They concluded by ordering the Air Staff AF/XO to develop a plan and to establish the rules of priority for assigning, allocating, training, and basing AEF personnel.[101] The assignment and allocation of personnel, especially combat support personnel, to the AEFs would soon add another dimension and layer of complexity to the EAF concept.

ACC took its first step toward preparing the AEF unit alignments on October

*The CAF and MAF are corporate USAF entities. The CAF consists of USAF NAFs hav-

27 and 28 when it hosted the first meeting of the CAF/MAF* Scheduling Integrated Process Team (SIPT).[102] The CAF/MAF SIPT consisted of MAJCOM representatives who had unit tasking and scheduling authority and who were empowered to commit resources and make scheduling changes. Its primary product was the consolidated planning order which established, in accordance with the AEF life cycle, the schedule and taskings for CAF units and for MAF units supplying airlift, transportation, and refueling support to the CAF units. At its first meeting, the SIPT prepared the MAJCOM-approved AEF schedule; subsequently, it continued to manage the inevitable "glitches" that troubled any such large undertaking. The SIPT cooperated closely with the AEF central management function, once that organization "stood up" on June 1, 1999.

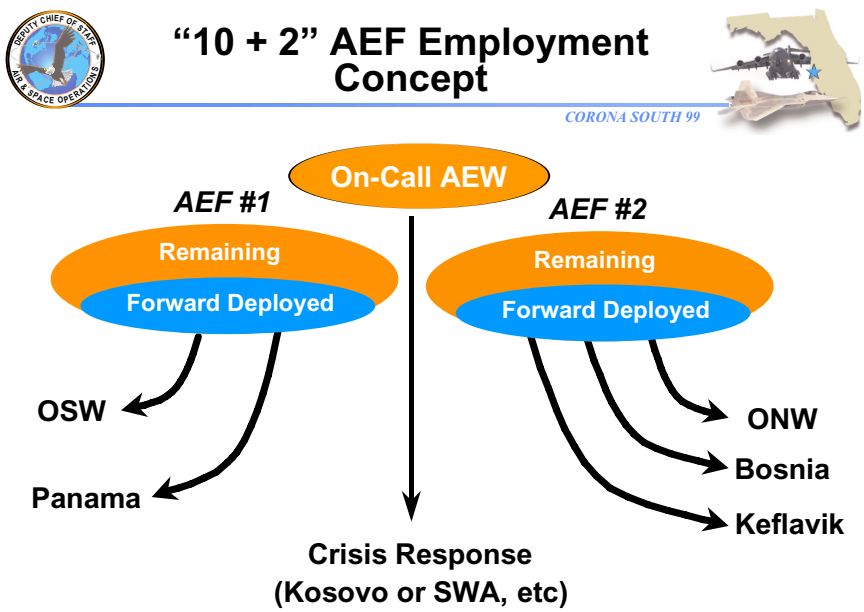
As a clear picture of the cost and impact of split operations emerged, it drove a reexamination of the 9+1 AEF structure. General Ryan had never been completely happy with the 9+1, in part because it seemed to contradict the public promises he had made to his service in August. On November 19, 1998, Generals Ryan and Hawley met to discuss EAF matters and agreed to abandon the 9+1 in favor of 10 AEFs with a dedicated on-call force.[103] Earlier, General Ryan had indicated his dissatisfaction with 9+1 by instructing XOPE to "prove to me that split ops [operations] is undoable (we have been doing it for some time) and what specifically is preventing me from moving to the stacked ten now?"[104] The Air Staff's study of squadron split-operations highlighted the problems discussed above. Staff members noted that a squadron had several types of one-of-a-kind pieces of equipment, hard enough to work around for a single deployment, and only able to be supplied by borrowing from another of the wing's squadrons, should they be required for a second deployment. ACC further illustrated the problem by showing the effect of two forward deployments on an F–16 squadron consisting of 18 aircraft. After sending a 12-aircraft package forward, which stripped it of all internal reserves, the squadron had to send its last six aircraft to another location. However, given the average 72-percent mission-capable rate of F–16s, four to five of the squadron's aircraft were not mission-capable at all times. To send six more forward, the squadron would have to exchange its noncapable planes for mission-capable planes in the wing's other squadrons. It would also have to borrow 553 pieces of equipment ($2.1 million in spares, navigation and targeting pods); 29 vehicles; and 86 personnel. This left the rest of the wing with more non-mission-capable aircraft and fewer reserves. It also depleted the wing's unified maintenance and repair shops of experienced personnel.[105] The Air Staff's solutions all rested on the hard fact that the service would have to purchase some combination of additional equipment and manpower in order to field an across-the-board split-operations capability.

---

ing combat missions. It includes NAFs from ACC, USAFE, and PACAF. Together, representatives of these MAJCOMs form a corporate body that helps to settle issues that affect combat forces and cut across the MAJCOM boundaries. The MAF is a similar body composed of NAFs having mobility, airlift, and refueling missions.

ACC agreed and estimated that the cost would be nearly $750 million and 3,079 persons for the first year alone.[106] The service deferred a decision until CORONA SOUTH '99.

In the interim, Generals Hawley and Ryan agreed to a new structure, at first called the 10+1 AEF structure and later institutionalized as the 10+2 structure. It deployed 10 AEFs to known contingencies for 90 days across a 15-month schedule. This minimized split operations and provided some on-call capability because units already tasked to send a package to a specific location could fall in on that location without having to establish a second forward base. The 10+2 backed those AEFs with two AEWs intended for pop-up and emergency contin-



gencies. These AEWs would serve in alternating 90-day on-call periods.

Since it seemed unlikely that a major new deployment would occur in every 90-day period, the off-and-on AEW rotation cycle meant that the constituent units would more than likely be able to maintain a schedule of 90 or fewer days overseas per year. The 366th Wing constituted one AEW; the 4th Fighter Wing, Seymour Johnson AFB, North Carolina, became the core of the second. The 4th Fighter Wing's two squadrons of F–15Es could do double duty as air-to-air and PGM aircraft, which gave it a smaller footprint than sending twice the number of F–15Cs and F–16CGs to perform the same tasks, and its basing in CONUS permitted it to swing between crisis areas. The USAF's other F–15E wings were already assigned to AEFs and had permanent stations in the Pacific and Europe. The CINCs of those areas would not look favorably on the assignment of their

forces to a semipermanent role in a worldwide, on-call response force. The 10+2 enabled the CSAF to keep his word, and it supplied a more acceptable short-term fix. However, the service still intended eventually to transition to a force of 10 AEFs, with each deployed pair capable of meeting nearly any on-call requirement.

Manpower and personnel issues greatly affected EAF implementation. Manpower deals with *spaces* — the management and allocation of billets or positions to fulfill specific functions in specific occupational areas; personnel deals with *faces* — the training, education, health, professional development and advancement, recruitment, retention, and assignment of service members. In developing the EAF concept prior to August 4, 1998, the service had decided to add 5,200 additional positions to AEF bases in order to provide relief for stay-at-home requirements. In addition, the Air Staff had come up with a need for another 100 spaces for AEF planning cells* — that is, a 10-man cell for each AEF lead wing — and 520 more positions as a reserve for operational and mission requirements that were under discussion but not yet finalized. The service had reprogrammed these 5,820 billets in the summer of 1998 in the FY 2000 budget estimate submission. Since General Ryan had pledged to implement EAF without a change in service end-strength, the positions came from the drawdown or completion of projects such as the closure of Howard AB, Panama, congressionally mandated headquarters reductions, and defense reform initiatives. The authorizations spread the number for these reprogrammed billets over two years, with 2,641 in FY 2000. However, in FY 2001 some of the programmatic reductions would fail to appear, and other manpower bills would become due: 690 positions to convert dependent squadrons to independent ones, and 610 positions for SF requirements above the rotational backfills. In the summer of 1999 at XOPE's recommendation (which was, of course, coordinated with the Air Staff and the affected MAJCOMs), the service retained the original 5,820 billets but deferred 536 invalidated spaces to FY 2002, reduced backfill by 10 percent, (to 4,870), folded in 690 for the switch to independent squadrons, and met only 30 percent (160 positions) of the SF's request. It deferred the remainder of the SF acquisitions to later years.[107]

When the budgeteers and personnel specialists finished comparing the projected open positions with EAF needs, they discovered that in FY 2003 the USAF would have to "offset" approximately 1,500 slots. This meant that 1,500 positions currently occupied by USAF personnel would have to be taken from existing USAF organizations and transferred to EAF requirements. The personnel in these positions would be absorbed into appropriate vacancies elsewhere in the service, as the spaces became open in the course of the year. Once the service had arrived at the numbers, the question became, Who pays? After excluding forces dedicated to AEFs, other operational units, headquarters staffs (already under congressionally mandated cuts), and other units exempt by statute or other agreements, the "finger" pointed at the Field Operating Agencies

*These spaces were eventually reassigned to form the AEF central management function.

(FOAs) and Direct Reporting Units (DRUs) belonging to Headquarters USAF and the MAJCOM headquarters. These DRUs, though not directly attached to their respective headquarters, provided important management and administrative services. Another round of exclusions and exemptions confined to the FOAs and DRUs eliminated 90 percent of their total personnel. Thereupon, the USAF levied an across-the-board tax of 9.25 percent on the remaining 10 percent of their positions. The tax extracted the 1,500 positions needed by the EAF.[108]

The allocation and assignment, or sourcing, of the individual men and women to provide ECS to the AEFs proved far more complex and time-consuming than did the process of realigning billets for the EAF. When each AEF deployed, it sent forward 2,000 or more support personnel, and it left behind approximately an equal number to service its stay-at-home and on-call elements. The two on-call AEWs consumed a number of support personnel nearly equal to that of an AEF; thus the service had to assign 44,000 or more individuals to specific AEFs. While many of these personnel already belonged to operational units assigned to AEFs, many did not.

A complicating factor was the necessity for the USAF, as with the other U.S. armed services, to present or transfer their trained, equipped, and fielded forces to the control of the joint CINCs who employed them. Neither the services nor the service chiefs appeared in the operational chain of command that ran from the NCA, through the Chairman of the JCS, to the joint CINCs, and thence to the CINC's component and joint task force commanders. The combatant CINCs drew up operational and contingency plans that required appropriate mixtures of force from their services. They did so under the rubric of "a single, unified planning and execution framework capable of translating individual service terminology and methods into a commonly understood language and standard operating procedures."[109] This framework, the JOPES, not only transformed national policy decisions into operation plans and orders, it provided the services and the joint community with a common means of describing force capabilities with the its accompanying automated data-processing system. JOPES had two forms of planning: deliberate planning and crisis action planning. Deliberate planning, as the name implies, was an 18- to 24-month process in which the CINC develops, fully staffs, and coordinates a plan supporting a chosen course of action. Upon approval, the plan's execution — the process of mobilizing, transporting to, and concentrating units, equipment, supplies and personnel at the point of action and establishing a logistics network to support them — is recorded in a plan-specific database, the TPFDD. Thanks to the JOPES data-processing software and hardware, the preparation of the TPFDD, which on occasion is nothing less than a full MTW plan, was far more flexible, complete, and faster than any previous military mobilization plans (for example, the classic war plans of the European great powers at the beginning World War I). Nevertheless, the preparation of a TPFDD was still a time-consuming and complex task. Each deploying AEF had to prepare a separate TPFDD configured for its unique units and support personnel, a task which would have to be repeated for the subse-

quent 15-month cycle when the AEFs switched deployment responsibilities. The generic TPFDDs that had sufficed for continual movement of USAF forces into and out of SSCs would have to be replaced. Crisis action planning telescoped the deliberate planning process into a few days or hours. It relied heavily on the already established assumptions of the deliberate process.[110]

The TPFDD expressed its requirements in terms of five-character alphanumeric designations known as unit type codes (UTCs), which varied widely in composition. A UTC for a 12-aircraft fighter package might include not only the aircraft and pilots, but also maintenance crews, spare parts, and specialized equipment. Some UTCs consisted only of materiel; others, mostly of personnel. All UTCs had to be transportation-feasible and logistically supportable. In theory, the TPFDD merely specified necessary combat and support requirements, but as noted earlier (p. 23), the CINCs could state these requirements in such a circumscribed way as to ask for specific units, even individuals. The USAF had one-third of its active-duty strength (119,000 men and women) assigned to UTCs. Of those, two-thirds belonged to support UTCs.[111] The USAF Reserve had 37, 600 (48 percent) of its people in UTCs, while the Air National Guard had 86,800 (78 percent) of its personnel in UTCs. Of these non-active-duty men and women, three-quarters belonged to support UTCs. The rejiggering of these codes to accommodate the EAF concept would be a considerable undertaking that depended on completion of two other tasks. ACC had to complete a schedule of units assigned to the AEFs so that support personnel assigned to those units could be sent to the correct AEF. And AMC had to exclude the UTCs of its forces dedicated to global airlift from those eligible for AEFs so that they would not have to perform two tasks at once. Both MAJCOMs needed time and delayed, until the end of January 1999, holding a major conference to schedule personnel to AEFs.

The critical participants at the January 1999 ECS sourcing conference were the 34 functional-area mangers, the men and women managing USAF personnel, all of whom were assigned to one of the approximately 400 AFSCs. They had the most complete knowledge of the availability for AEF assignment of the uniquely trained individuals they managed. Both the Air Staff and the MAJCOMs sent functional-area managers to the conference. Although each organization oversaw the same personnel, the two had differing perspectives: Air Staff managers possessed wide, general knowledge whereas the MAJCOM managers had specific and deep knowledge about their people.

The conference began with a specific set of rules to guide its decisions:

1. Team integrity will be maximized,
2. Home base capabilities will be maintained at adequate levels during deployments,
3. Align ECS to the CAF/MAF schedule,
4. Maximize home base sourcing,
5. Work *across* [emphasis in original] 10 AEFs rather than down,

6. Identify reserve component commitment for each EAF,
7. Source sister wings within an AEF, and
8. Source rest of USAF UTCs into all AEFs.[112]

Most of the rules were self-evident, but some required further explanation. The bias for team integrity and maintaining home-base functions came straight from the SECAF's and CSAF's August 4 announcement. Aligning ECS to the ACC and AMC force-schedules was mandatory for any rational deployment scheme; otherwise, how could one allot the correct support to the appropriate units? Sending deploying combat forces and ECS from the same base whenever possible strengthened unit cohesion and minimized transportation requirements. Working *across* rather than *down* the AEFs referred to one of the methods the functional-area managers should employ in sourcing. They should not take the AEFs singly and source them in order, that is, they should not go down the list of AEF 1's requirements and completely source them before proceeding to AEF 2, and so on. This might leave many holes in AEFs 9 and 10. Instead, as a first step, the managers should take a specialty, such as munitions handling, and spread it as equally as possible across all 10 AEFs. This method might leave each AEF a few persons short in the same specialty, but the personnel system would probably find it easier to work around a few individual shortages every 90 days than several dozen shortages all at once.

Identifying Air National Guard and USAF Reserve commitments for each AEF served several purposes. It fulfilled the USAF's pledge to make the EAF paradigm a Total Force concept by institutionalizing the Reserve components' ECS contributions to the AEF structure. Scheduling Guard and Reserve members into specific AEFs and specific occupational slots relieved the tempo burden on active-duty members. Once completed, this sourcing gave the Reserve components a fixed activity schedule for their members and their members' employers. Scheduling the components also allowed the service to comply with its members' preferences to serve in regularly scheduled forward locations rather than in on-call elements. The potential short-notice deployments of the on-call AEWs did not fit the components' needs for fixed scheduling. The sourcing rules also instructed the managers to treat Guard and Reserve ECS as a second-priority source, after first approaching the lead wing and base for personnel.

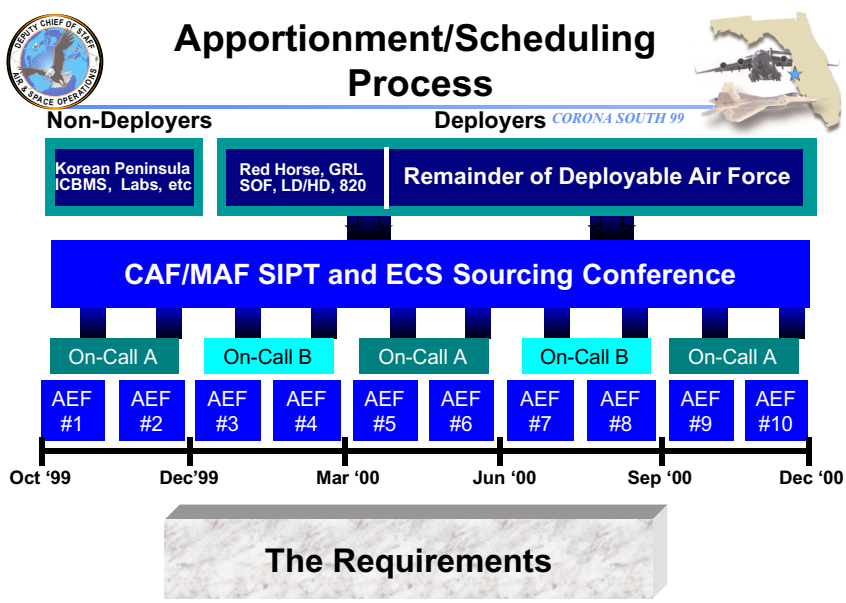
Sourcing requirements to "sister" wings within an AEF merely meant that when the process had exhausted the available resources of the lead wing or base and the Reserve components, the AEF should turn to other wings or bases supplying packages for it before taking resources from wings not involved in that AEF. Finally, the rules instructed the managers to include, when possible, as wide a selection as practical of all service members eligible to deploy.[113]

Once it began work, the January EAF sourcing conference had to confront a basic design problem of the JOPES/UTC system. As with most existing DoD planning systems, it had been created during the Cold War and was intended to deal with large units involved in an MTW. Many of the USAF's existing 37,000

UTCs for units and support personnel packages did not fit the smaller requirements of an AEF. This forced the conference attendees to create or modify several thousand UTCs which had to be approved and hand-entered into the JOPES system. When possible, the attendees "modularized" existing large UTCs. For example, a deployed wing demanded a 44-man SF team, whereas a 12-aircraft package that deployed from a squadron required far fewer security personnel. The conference created from this large UTC three smaller teams of 13 SF personnel each, which met an AEF's needs. If the service needed the larger force, it could take the three 13-man teams, add a command element, and field the larger team: now, four small UTCs replace one big one. Given time and practice, this building-block approach could meet needs both small and large while giving the USAF great flexibility in the manner in which it supplied forces to the CINCs.[114]

At the end of two weeks, the conference had completed the important task of aligning the bulk of ECS to the 10+2 structure. Some of the most complex transactions needed more work, and much fine-tuning remained to be completed at subsequent conferences. When the process concluded by the end of 1999, the Palace Blitz and Palace Tenure individual augmentation programs, which the USAF had used for almost a decade to supply much of its ECS deployments, would be eliminated.

In the summer of 1999, the service institutionalized the ECS sourcing process by establishing the ECS IPT and the ECS Scheduling Integration Team (SIT) at Langley AFB, where they could coordinate with the AEF structure's central management function, the AEF Center. The ECS IPT consisted of representatives of the MAJCOMs empowered to make sourcing decisions for their com-



mands. The ECS SIT assisted the IPT by hosting scheduling conferences and integrating all scheduling and sourcing decisions into the AEF TPFDDs. It also prepared and forwarded the appropriate manning documents for both aviation and ECS UTCs to MAJCOMs and units. These documents included arrival timing for AEF-assigned units and personnel.[115]

Although only dimly perceived at the time, the January conference had other equally important consequences. In updating and converting its UTCs to conform with its current operational practices, the USAF emerged as the service most in tune with the requirements of the "joint" world. The conversion process also affected internal USAF force management practices by making them more compatible with joint methods. Once the service created a UTC for its 13-man SF team, the same UTC could be used to manage not only the team's deployment but its training, education, and exercises. Once the ECS and unit-sourcing and the resources and movements they controlled worked their way through the USAF, they would force all aspects of the service to conform to the EAF concept. In this way, EAF would become a powerful tool for managing the service.

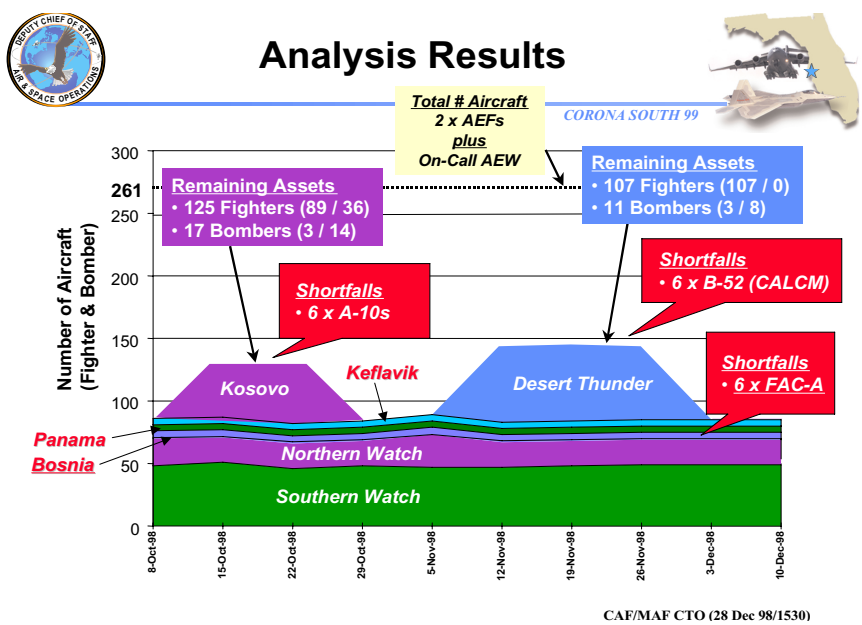
At CORONA SOUTH '99 held from February 2 to 4, 1999, at MacDill AFB, Florida, the USAF's leadership again reviewed the progress of EAF implementation. From General Ryan's kick-off "State of the Expeditionary Aerospace Force" address to the final "Where Should We Be in 2010?" session, EAF matters pervaded the conference. The separate threads of roles and responsibilities, AEF management, personnel sourcing, and resources for AEFs again coalesced. On the first day, General Cook spent three hours covering the status of things EAF.[116] He delivered three briefings: the first presented the status of the implementation, the second discussed a change in the nomenclature of AEFs from lead bases to lead wings, and the third addressed integrating AEFs into the joint planning process.

The implementation brief covered four principal topics: the EAF implementation plan, the sourcing and scheduling of EAF, a case study of EAF operations, and transition to the permanent 10-AEF structure. In presenting the plan, General Cook showed a timeline taking implementation from General Ryan's August 1998 announcement through the standup of XOPE, the sourcing and unit alignment, to the initial spin-ups and deployments of AEFs 1 and 2 and of AEFs 3 and 4 by January 2000. He also presented XOPE's progress on preparing the two key documents needed to implement the process throughout the USAF. The EAF Implementation Program Action Directive would contain the service's basic plan for instituting the EAF. After a giving a statement of the EAF's concept of operations (CONOP), the plan specified that the USAF Secretariat and Air Staff functional offices develop and manage appropriate annexes to the plan. It then instructed the MAJCOMs, FOAs, and DRUs to develop procedures to identify and execute their actions in support of the plan. Such a plan required time to create because of the necessity to coordinate it throughout the service. While XOPE hoped to have the plan finished by May 1999, the USAF's activities surrounding the Kosovo conflict delayed its publication until August. AFI

10–400 provided USAF-wide policy and guidance to conduct planning for AEFs. It complemented the deliberate action planning process for MTWs and formalized the AEF contingency planning process by describing the roles, responsibilities, and relationships of USAF organizations involved with AEF operations. Once published, the instructions of the AFI became mandatory on all affected USAF organizations.[117] These two documents, the AFI and the deliberate action plan, would serve as reference manuals for all USAF organizations as EAF implementation worked its way through all levels of the service.

The sourcing and scheduling brief covered the process for assembling AEFs. After excluding units and individuals in the Korean Peninsula, missiles, USAF research and development, and so on, and after accounting for the unique needs of LD/HD units and LD/HD-like units, the CAF/MAF SIPT at Langley AFB would allot and schedule combat units, transportation, and airlift to the AEFs. Using UTCs, ECS conferences sourced support teams and individuals to AEFs.

The next portion of the brief applied the 10+2 construct to two recent crises: the buildup of forces in the Balkans in October 1998, and Operation Desert Thunder, the buildup of forces in Southwest Asia in November 1998 to counter continued Iraqi evasions of the UN cease-fire resolutions and inspections. In neither case did the buildup exceed the capacity of two AEFs and an on-call wing. At their highest points, each crisis left more than 100 fighter aircraft available for other contingencies. Although XOPE noted one potential problem, the same on-call wing would have had to deploy twice during its cycle, it concluded that 10+2 worked and that dependent squadrons and split operations would continue as limiting factors.[118] The last portion of the brief addressed the question of how



to transition from a 10+2 to a ten-AEF construct. Accordingly, XOPE suggested creating a split-operations capability or increasing the multirole capability of aircraft, or some combination of the two.[119] For instance, the purchase of additional PGM delivery pods to equip F–16CJs would allow the same unit to perform strike and SEAD missions. In the meantime the Air Staff recommended upgrading the 366th Wing and its dependent squadrons and developing a corporate investment to obtain more capacity for all squadrons.

In the afternoon, General Cook delivered the brief, "Lead Wing and AEFs in Joint Operations." His presentation informed the leadership of the change in AEF identification from their lead bases to their lead wings. It also discussed AEF command relationships and the standup of the AEF management staff. The change in designation had occurred earlier, in November 1998, and reflected the fact that the same individual headed both an AEF and its lead wing. This approach also had political significance outside the Pentagon, for as XOPE noted, "designation of wings instead of bases will help minimize [the] concern of some outside the building that we are BRAC proofing certain bases." The BRAC process decided which bases to close and which to retain. Although "dead" in the current Congress, BRAC might be revived in the future. Identification of a base with a major unit might give it, and its associated community, an advantage, or tiebreaker, in the BRAC selection. Hence, the service switched to the less sensitive lead-wing identification.[120] The three key criteria the service used to select the wings were span of control, level of non-AEF activity already ongoing at a wing's base, and base manning. After General Cook presented the 10 lead wings, an inconclusive discussion ensued concerning who would command humanitarian relief and evacuation operations — the combat lead-wing commander, the CINC's command structure, or an AMC wing commander. Next, the brief described the functions of the AEF management staff and touched on the subject of the relationship between the lead-wing commander and the AEF/CC. General Cook recommended preparing and coordinating a set of CONOPs concerning lead wing commanders, AEF/CCs, and the AEF management staff for inclusion by March 15 in AFI 10–400. He also recommended that on June 1, 1999, the service establish the management staff.[121]

The last briefing discussed integrating the AEF structure into the joint planing process. AEFs would have to be constructed by using UTCs to insure compatibility with JOPES, and AEFs would eventually replace "fighter wing equivalents" as the joint measure of USAF combat power specified in joint planning and execution documents. The brief emphasized that although the AEF structure met the USAF's need to manage its day-to-day commitment to SSCs, it would also be able to fulfill the CINC's needs for all contingencies up to an MTW. This emphasis on the transition SSCs to MTW would be tested within two months when the USAF entered into the bombing of the Republic of Yugoslavia. General Cook recommended that EAF be incorporated into the Defense Planning Guidance and other joint planning documents and that future USAF experiments focus on EAF, SSCs, and the transition to MTWs.[122]

The February 2, 1999, briefings resulted in a spate of 12 CORONA taskings and decisions directly related to EAF. The leadership ordered ACC and the Air Staff to calculate the resources needed to make the squadrons of the 366th Wing and other dependent squadrons capable of independent operations and to add that funding to the upcoming amendments to the USAF Program Objective Memorandum for FY 2001.* The leadership also endorsed the creation of a set of CONOP documents for the AFI, the incorporation of EAF concepts into joint plans, and the development of a corporate strategy to fund EAF in the coming years. This included the purchase of additional specialized aircraft pods to increase the multirole capability of USAF aircraft. The leaders also authorized on June 1, 1999, the establishment of the AEF central management function, which stood up as the Aerospace Expeditionary Force Center on that date. Next, they instructed XOP to "determine the process to transition from SSCs to MTW execution." Lastly, they ordered the CAF and MAF to sort out AEF command relationships for humanitarian relief missions.[123]

The final direction proved one of the easiest to fulfill. After some negotiations, CAF and MAF agreed to designate one AMC wing per pair of deploying AEFs as the humanitarian lead wing. With this last step in place, the USAF proceeded to publicize the decision. On March 5, after vetting the selection with the Secretary of Defense, the appropriate congressional committees, and other affected national legislators, the USAF, as part of its annual force-structure announcement, identified the 17 lead wings for the ten AEFs, the two on-call AEWs, and the five mobility lead wings:[124]

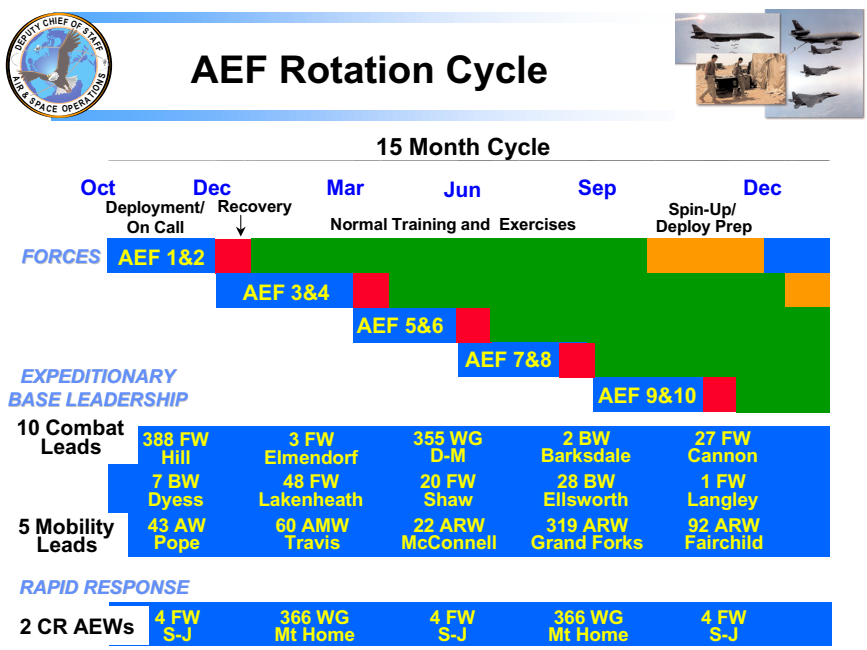
AEF #1: 388th Fighter Wing, Hill AFB, Utah
AEF #2: 7th Bombardment Wing, Dyess AFB, Texas
AEF #3: 3d Wing, Elmendorf AFB, Alaska
AEF #4: 48th Fighter Wing, Lakenheath AB, U.K.
AEF #5: 355th Wing, Davis-Monthan AFB, Arizona
AEF #6: 20th Fighter Wing, Shaw AFB, South Carolina
AEF #7: 2d Bombardment Wing, Barksdale AFB, Mississippi
AEF #8: 28th Bombardment Wing, Ellsworth AFB, South Dakota
AEF #9: 27th Fighter Wing, Cannon AFB, New Mexico
AEF #10: 1st Fighter Wing, Langley AFB, Virginia
On-call: 4th Fighter Wing, Seymour-Johnson AFB, North Carolina
On-call: 366th Wing, Mountain. Home AFB, Idaho

*The Program Objective Memorandum is an important document that states a service's requirements for funding all its annual activities. It is part of the annual DoD Planning, Programming, and Budgeting System (PPBS). When introduced in the early 1960s, the PPBS, which Secretary of Defense Robert S. McNamara used when managing the Ford Motor Company, represented the latest in business practices. In the forty years since its inception, the procedure has been abandoned by modern American business as an impediment to the flexibility needed to cope with the quickly changing forces of a modern world economy.

The chosen wings represented a careful balancing of effectiveness and internal service politics. PACAF and USAFE, the two overseas commands with forces permanently stationed abroad, had one AEF each. ACC bombardment wings retained their status by also leading AEFs, and AETC gained some measure of active participation because it served as the host MAJCOM of the 388th Fighter Wing at Hill AFB.

As noted, the force-structure announcement acknowledged AMC's unique role as a major participant in the specialized world of humanitarian aid and relief and emergency evacuation. The announcement revealed that the USAF had designated five AMC wings, one for each pair of AEFs, as the lead for such operations occurring in that deployment cycle:

AEFs 1&2: 43d Air Wing, Pope AFB, North Carolina
AEFs 3&4: 60th Mobility Wing, Travis AFB, California
AEFs 5&6: 22d Air Refueling Wing, McConnell AFB, Kansas
AEFs 7&8: 319th Air Refueling Wing, Grand Forks AFB, North Dakota
AEFs 9&10: 92d Air Refueling Wing, Fairchild AFB, Washington



The public designation of AMC lead wings also served General Ryan's goal of making the EAF concept as inclusive as possible by visibly making AMC part of the scheme. In practice, the AMC lead wings would supply site survey teams and other assistance to a CINC's DIRMOBFOR.

Validating the Concept: Kosovo

For the first six months of EAF implementation, the concept engaged a high level of USAF attention and energy, but in March 1999 the international crisis over Kosovo, a province of the Republic of Yugoslavia, shouldered the EAF aside. As the United States and its NATO Allies sought to end the repression of the ethnic Albanian population in Kosovo, they deployed increasing levels of military force to the region to back up or, if need be, to enforce their demands on the government of the former Republic of Yugoslavia headed by Slobodan Milosevic. Beginning on February 19, 1999, USAF combat units and support forces flowed to region. When the dispute turned into an armed conflict, with the initiation of a NATO bombing campaign against Milosevic's regime on March 24, 1999, the USAF carried the lion's share of the load. Throughout the 78-day campaign, which ended on June 9 after forcing Milosevic to accede to NATO occupation of Kosovo, the USAF supplied in excess of 55 percent of all aircraft and helicopters involved. By May 24 the USAF had assigned approximately 240 combat aircraft and 300 support and reconnaissance planes to the Kosovo mission.[125] At the request of General Wesley Clark, USA, the overall NATO military commander and USCINCEUR, the USAF had also scheduled additional large increments of units and personnel to arrive in the theater of operations by July 1. The early end of the campaign canceled this later movement.

For the USAF, though not for the other U.S. armed forces, its commitment to Kosovo operations equaled the level of an MTW and, given its reduced force structure, exceeded the percentage of effort it devoted to the Vietnam and Persian Gulf Wars.[126] As the bombing campaign designated Operation Allied Force continued, the strain became so severe on the service that it instituted an emergency "stop-loss" program, which retained individuals with key specialties, like pilots and maintenance crews, scheduled to leave or retire from the service during the crisis. It also convinced President Clinton to use his authority to call up selected portions of the USAF Reserve components and, at one point, to shut down Operation Northern Watch for four weeks to "borrow" aircraft for use in Kosovo operations. The service also had to close some of its training "schoolhouses" to use their instructor crews and aircraft in active operations, and it consumed its most modern and scarce munitions, such as air-launched cruise missiles and precision guided bombs at alarming and unplanned levels. Naturally, the heavy flow of resources into the Balkans disrupted the proposed plans for AEF aircraft alignment and support personnel schedules and diverted the energy of all USAF organizations to concentrate on their role in supporting ongoing combat operations.

The concentration on Kosovo operations slowed the momentum of EAF implementation. As those operations entered their third month, they threatened to delay EAF implementation. Loss of momentum could damage the process; delay could kill it. An April 30 news article proclaimed that "Kosovo operations would have overwhelmed the system had it already been operational," and it

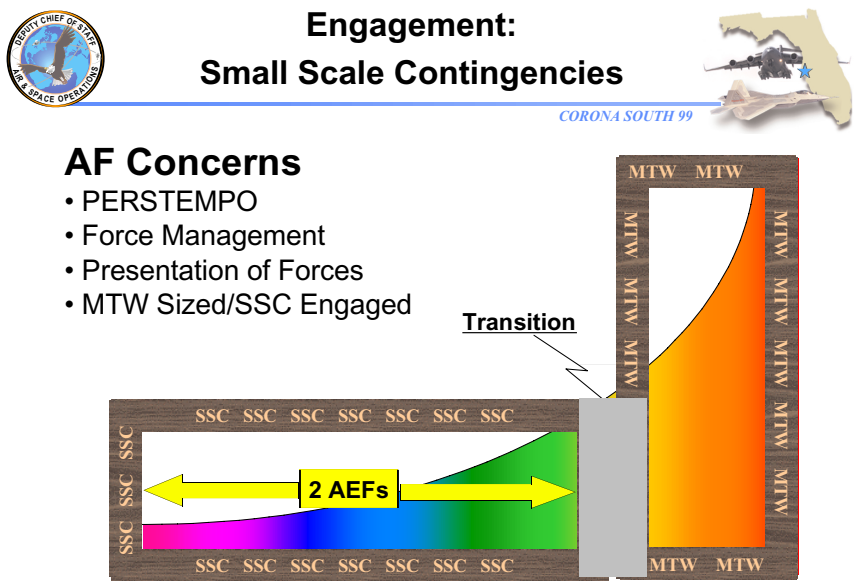
cited General Hawley as saying that even though the AEFs would meet their October 1, 1999, deployment date, "AEF implementation is going to be rough" and "we are having a tough time putting it together."[127] At about the same time, for Air Staff consumption, Colonel Allardice acknowledged that "Kosovo has impacted on AEF implementation" and that the "main effort" might not resume until "180 days from the end of current surge operations."[128]

In early May General Ryan took two key actions that helped the EAF concept regain momentum. First he ruled that the AEF schedule would remain "inviolate." This meant that the 10 AEFs, with the resources already allocated and sourced to them, would stand up, as planned, on October 1, 1999, and the initial 15-month AEF cycle would begin on that date. This action reassured the service that the effort spent to date on implementation would not be wasted and that the complex task of assigning units and personnel across the AEFs would not have to be repeated. It further signaled his determination put the EAF in place, no matter what the difficulty, and it encouraged the service to work around whatever holes the current crisis had created. If the USAF had to fight an MTW and implement necessary changes simultaneously, it could be done. Whenever the conflict stopped, the AEFs scheduled for that time period would roll into place. At first, this action seemed impossible, but the end of Allied Force in early June left just enough time to proceed with the planned implementation.

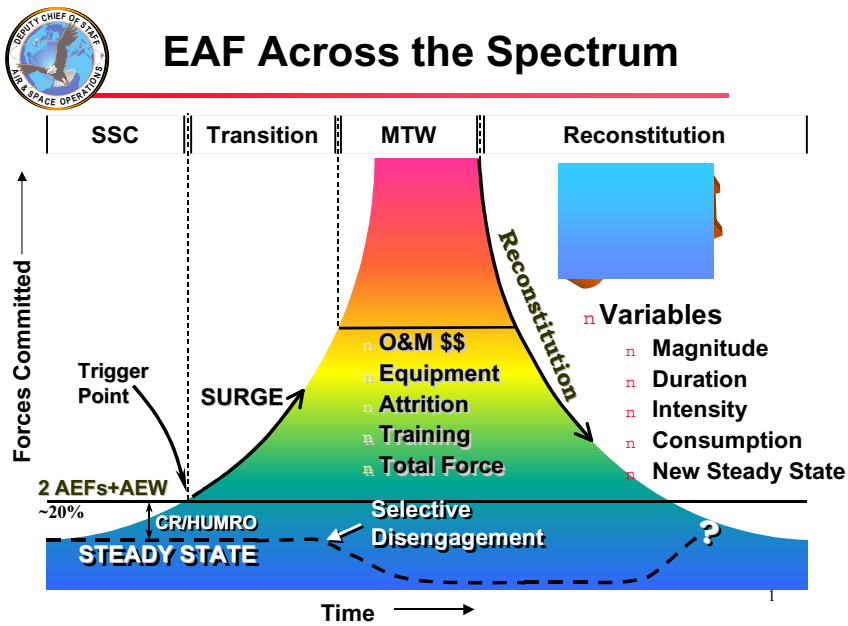
General Ryan's second action placed XOPE and the EAF if not in the center ring occupied by Kosovo, at least in the second ring under the big top. During an AEF update briefing given by General Cook and Colonel Allardice in early May, the CSAF kept asking, "What does it take to reconstitute?" He even took a slide that had a graph showing the upward curve of force required to transition from an SSC to an MTW and drew a curved line away from the top. At the end of the brief, General Ryan gave the chore of defining reconstitution and its cost to General Cook's immediate superior, Lt. Gen. Marvin R. Esmond, the DCS, Air and Space Operations. General Esmond nodded and said he would "pull his staff together and figure out how to do it." As Esmond prepared to leave, Cook turned to Colonel Allardice and ordered, "Grab that tasking." General Esmond willingly passed it to a volunteer.[129]

After receiving this task, Colonel Allardice and two of his more experienced planners, Lt. Col. Edward W. Hatch, a logistician, and Lt. Col. Virginia Werezynski, a medical administrator, sat down to flesh it out. They produced a model that transformed EAF implementation from an unproven theory to a solid, logical basis. Following the CSAF's lead, they looked at the "spectrum" slide in the standard EAF briefing which discussed the transition of forces between the SSC and MTW. They realized that the spectrum slide illustrated only half the range of action — that of deploying forces up to and into the MTW. When the MTW concluded, the service would have to return to its day-to-day SSC existence. To illustrate this entire range — SSC to MTW and back to SSC — they produced the full-spectrum slide, nicknamed the "Stetson" or "Volcano" slide after its resemblance to a cowboy hat or to a lava-filled mountain.[130]

Once they had identified the crude model, it proved its worth by allowing a series of sophisticated additions that clearly explained the applicability of the EAF concept to circumstances facing the service. It did so in the language favored by U.S. military officers, the Powerpoint (Microsoft™) slide, rather than in a wordy and almost surely unread paper. On May 7, Colonel Allardice presented the slide to the rest of the XOPE staff, whose members added more details. By May 11, he, General Cook, and the XOPE staff had hammered out a complete briefing. The basics of this briefing, "Transition from SSC to MTC [major theater conflict]," and many of the ideas it developed would eventually go all the way to the President. They would also become part of the standard EAF briefing used by XOPE's outreach branch to instruct the entire service.



First, they divided the full spectrum into four portions. The SSC began at the preconflict SSC level and went across the spectrum to a point where the curve of forces committed exceeded the capacity of the two AEFs and the one on-call AEW (the standard 10+2 force). At that point, which represented the maximum amount of force that the USAF could provide on a daily basis, some portions of the service would begin operating in a surge mode. This consumed personnel and resources at a rate higher than that that could be replaced by normal supply channels. Once this threshold was exceeded, it could trigger planning for reconstitution — rest for personnel, acquisition of consumed operating stocks, the replenishment of stockpiles, and restoration and upgrading of aircraft to current standards. Next, they designated the portion of the spectrum between the trigger point and full MTW commitment as the transition, or contingency operations,



portion. As force deployments went up the curve to an MTW, more and more of the USAF would enter the surge mode and would require reconstitution.

The top of the spectrum was the MTW portion, putting much of the force into surge. Its duration, intensity, magnitude, and total consumption of resources (attrition, losses, waste, etc.) would directly influence the cost and time required for reconstitution. In this model, time and cost were not completely interchangeable. Even if people and aircraft could be replaced immediately, they would still require training and a break-in period to reach the effectiveness of the team they replaced. At the end of the MTW, reconstitution became the fourth portion of the spectrum. This formed the base model.[131]

Of course the balanced curves of the model did not reflect the actual state of the service. Each weapons system, aircraft, and personnel specialty would have its own unique spectrum. For example, SF would go into surge as soon as USAF deployments exceeded the trigger point, but they could not go into reconstitution when the MTW ended. They would stay in surge until the number of committed combat and support forces returned below the trigger point. In contrast, an aircraft wing might return to its base as soon as the shooting stopped and begin recovery. Even in this example, the wing's recovery might be delayed for the length of time it took to return its deployed support personnel. Airlift forces would probably go into surge first and come out last. In reality, an accurate picture of the state of the service could only be obtained by comparing the spectrum of all its organizations. If this could be done, it might open up a new level of insight and planning for future operations.

Once it had derived the basic model, XOPE superimposed two different overlays. One illustrated the planning perspective, and the other, operations. The planning perspective emphasized the different mechanisms used to supply forces for combat. The SSC phase used individual augmentation programs. The transition phase, part of the joint crisis-action planning process, would at first tend to deploy people and units on an ad hoc basis, but as commitments grew, it would flow by UTCs. The MTW portion, a product of the joint deliberate planning process, would employ UTCs to deploy most of its forces. However, the reconstitution portion had no planning process for flowing units and personnel back to recovery. The planning overlay revealed the faults in the current system: poor asset visibility; stovepiped systems; and three separate planning processes, all based on old threats. The overlay also showed the advantages that EAF could produce with all commitment flows based on a common UTC database, and it exposed the need for a single, full-spectrum planning system to replace the three existing systems, with one that offered seamless procedures from SSC to MTW and back.[132]

The operations overlay emphasized the utility of the AEF construct as a mechanism for force management. About a fifth of the way up the commitment curve, at the trigger point and the total of two AEFs plus an AEW, it drew a vertical line. All deployments below the line could be met by the AEF construct. Since the end of the Gulf War, only two deployments had gone above the line: the Kosovo crisis and the final increment for Operation Desert Thunder, which was recalled in the air, before reaching the theater. The advocates of the AEF construct had freely stated, from the initial introduction of the concept, that in an MTW, any deployment system would have to give way to the nation's vital interests. However, in the past 55 years the USAF had encountered only four MTWs: the Korean War (three years), the Vietnam War (seven years), the Gulf War (seven months), and Kosovo (2.6 months). It could live with a force management tool that applied 80 percent of time. Under the trigger-point line came a dotted line, the amount of force required for pre-Kosovo steady-state operations. The space between the steady state and trigger lines represented crisis response forces and humanitarian relief operations. As the dotted line reached the MTW phase of the spectrum, it dipped. At that point the XOPE planners suggested that the NCA begin to consider "selective disengagement," the closure or scaling down of less vital SSCs. Once the service had finished the reconstitution phase, the dotted line returned to its original or a slightly higher level. This reflected additional SSC commitments required by the postsettlement circumstances of the MTW. The end point of the dotted line may have reflected an unconscious assumption of the planners: the intervention of U.S. armed forces was as likely to result in an inconclusive end state requiring a new commitment (for example, as in Korea, Iraq, and Kosovo) as it was to produce permanent resolution of the problem (such as in Grenada and Panama).[133]

A final variant of the full-spectrum slide reached the President. It presented the unique situation that the USAF would find itself in at the end of Kosovo

operations. In all its previous major conflicts — from World War I through the Gulf War, with the exception of Korea* — the service had suffered immediate and substantial force reductions. The excess materiel and manpower released from disbanded units cushioned or met reconstitution requirements, even if the excess saddled the service with an inventory of obsolescent weapons. However, the service anticipated no substantial force structure changes after Kosovo. This meant that the extra flying hours and war emergency maneuvering and load stresses that had removed years of service life from airframes would require replacement by new acquisitions rather than transfers from excess inventory. Likewise, closed training programs would have to be restarted and lost time made up. This makeup would include restoring skills that had atrophied due to lack of practice, regressing to pretraining levels. Instead of replacing personnel leaving the service with trained personnel from units standing down, the service would have to recruit new, untrained men and women and promote less experienced junior personnel, who would need time to attain the skills required in their new positions. Clearly, units undergoing reconstitution would be less ready until they made up their shortfalls. In fact, until it finished recovering, the USAF would be less capable than it was before its entry into the Kosovo conflict.

The last variant of the full-spectrum chart showed this fact of life by taking the force commitment line *below its prewar level* and keeping it there until the force completely recovered. This shortfall between capability and requirements was a gap that other services, not as heavily committed to Kosovo, ought to cover, just as the USAF had for years filled the carrier gaps caused by the refusal of the NCA to either reduce the USN requirements or fund additional force structure.

The full-spectrum slide's implications for reconstitution and EAF implementation soon worked their way through the USAF and beyond. As soon as General Ryan saw the slides, he decided to take a request for a temporary postwar reduction of USAF SSC commitments to the highest levels. He also issued a set of reconstitution guidelines that established a set of sliding qualifications. A unit with 40 percent or more of its strength engaged in Kosovo for 120 days or longer would require 180 days for reconstitution; units less than 20-percent engaged for 90 days would be assessed as fully ready. Units that fell between these two parameters would be assigned reconstitution periods on a prorated schedule.[134] For the first time, the service could track the negative long-term effect of an MTW deployment on its forces. When planners laid out the forces engaged and their recovery times against the AEF schedule, they knew immediately not only where the shortfalls existed, but also the extent of the disruption caused or risk imposed on the entire force when filling with a different unit, compared with living with the shortfall.

*Korea represents a special case. Although the 1953 cease fire ended a hot war, it occurred in the context of a national commitment to rearm for a possible multitheater war against the Soviet Union, the People's Republic of China, and their satellites.

On May 21, General Esmond asked all the MAJCOMs and all sections of the Air Staff and Secretariat to provide information assessing their current level of stress, existing shortfalls, and commitments to theater operations plans and ongoing SSCs.[135] He required the information to consolidate all USAF reconstitution efforts and present a plan to General Ryan. The full-spectrum template enabled the Air Staff to make an unprecedentedly precise analysis of the overall state of the service and, again for the first time, gain an accurate accounting of USAF holes in the other CINCs' operations plans caused by deployments to Kosovo. The EAF had proven its value as a management tool.

Beginning on May 28, 1999, with a brief to the Chairman of the JCS, General Ryan took the USAF's reconstitution plan and request for relief through Secretary William S. Cohen to President William J. Clinton, whom he reached in the first week of June. His quest came to naught. The end of hostilities, on June 9, appeared to invalidate original USAF calculations based on operations continuing until August 15 and weakened General Ryan's rationale for relief. In any event, none of the other services volunteered to step forward. Yet the effort established an important precedent. The USAF had admitted to the NCA that it had, in at least one instance, reached the limits of its resources.

From the initial standup of his directorate, General Cook had always pointed toward CORONA TOP 1999, June 14–17, at Wright Patterson, AFB, Ohio, as the EAF's "senior prom," where the responsibility for implementation would begin to pass from the Air Staff to the service as a whole.[136] However, Kosovo turned EAF into something of a wallflower, as briefings for the "Warfighter" took precedence. On the morning of June 15, General Cook, whose selection to lieutenant general and assignment as Deputy Commander, USAF SPACECOM had already been announced, delivered an update on EAF/AEF implementation and a briefing on the SSC-to-MTW transition, which explained the spectrum model to the assembled leadership. CORONA TOP '99 produced only two EAF taskings; both dealt with disseminating the concept to the service rather than with issues of implementation.

On July 15, 1999, Maj. Gen. William S. Hinton, Jr., became the new Commander, Directorate of EAF Implementation. He had just completed overseeing the massive humanitarian relief program to aid the Kosovo refugees and could justifiably claim considerable experience as an officer who had already conducted "expeditionary" operations. As for the EAF, General Ryan instructed him to "get it implemented and get it stood up so we can press on with it."[137] General Hinton had just 75 days to oversee the formal establishment of the 10+2 concept and get AEFs 1 and 2 deployed. While General Hinton found that XOP and the MAJCOMs had already completed much of the conceptual work for implementing the EAF concept, he also found that much work remained on the tasks of physically standing up the AEFs and defining their day-to-day working relationships within the service and with the AEF Center. He laid great emphasis on outreach, getting information about the EAF and AEFs to members of the service so that they "understood what this means to them in their lives in real

terms."[138] By the time he left XOP to become the assistant DCS for Air and Space Operations on December 15, 1999, General Hinton had completed his task of focusing the implementation effort toward completion of allocating and sourcing the AEF construct and of educating the service so that it could absorb and carry on the EAF concept without a special Air Staff office.

The AEF structure began operations on schedule on October 1, 1999. The crisis response AEW, led by the 4th Fighter Wing, filled the holes in AEFs 1 and 2 caused by the absence of units recovering from Kosovo. This expedient would not have to be repeated for subsequent AEF pairs. Seventy-four percent of this force was sourced to UTCs, a figure that would rise to 94 percent when AEFs 5 and 6 deployed on March 1, 2000.[139]

Conclusion

By the late 1990s, a reduced force structure combined with the day-to-day requirements of the national strategy of selective engagement compelled the USAF to employ its aircraft and personnel at high rates that threatened to consume its resources faster than they could be replaced. The service faced two sets of interrelated problems. The first dealt with force structure. In addressing this set of problems, the USAF needed to

- Develop greater efficiency in managing the its resources,
- Create a tool to manage and pool its resources,
- Produce a method of planning and executing a smooth transition of its forces from SSCs to MTWs, and
- Generate a means to manage its force structure that accommodated high day-to-day operations tempo without placing the two-MTW strategy at risk.

The second set of problems dealt with how to use USAF people as wisely as possible. To address this issue, the service needed to

- Relieve and equalize operations and personnel tempo throughout its force,
- Increase retention,
- Inform its members and recruits of the change in service conditions,
- Ensure greater participation of the Air National Guard and USAF Reserve in day-to-day operations, and
- Develop a scheme that provided stability and predictability for service members and their families.

The EAF concept and AEF structure addressed and answered these problems. The relatively smooth progress by which this implementation was achieved was a direct result of the lack of internal service opposition, owing to two major factors. In a sense, EAF was an idea whose time had come. Most service members and communities could see that Cold War modes of operation and thought no

longer applied to the situations confronting the service. There also appeared to be a general acceptance of the proposition that any new scheme would have to apply to the management of the many SSCs and the resulting high operations tempo that controlled USAF deployments. EAF played to these perceptions and benefited greatly from the fact that no clearly articulated or coherent alternative solution competed with it. Those who disagreed with EAF had no other comprehensive set of answers to the service's problems. This left critics in the position of either denying the necessity of change and advocating the status quo, or of accepting the need for change and arguing about the details of EAF and its implementation rather than arguing against the EAF as a whole. Neither argument was persuasive enough to derail EAF implementation.

The other major factor in EAF's successful implementation was that it did not directly threaten entrenched service interests. Reform often appears as an effort to impose change in the face of determined opposition, such as in the case of women's suffrage, the civil rights movement, or prohibition. As a result, reforms that are not crusades tend to be devalued, as if they were somehow less worthy or less necessary than de facto crusades. As Col. Robert C. Owen of AMC's directorate of operations observed, EAF was unique among major service reforms in that it did not "pit the MAJCOMs against one another."[140] Because no MAJCOM had to make major concessions to enable the EAF, it became easier for all the MAJCOMs and service communities to cooperate and engage in the relatively modest compromises needed to secure change. Likewise, individual service bureaucrats and their organizations were not threatened by reorganization or reduction of authority. In fact, once they understood EAF, they realized that it might well increase their control by giving them a more effective management tool. Lack of determined opposition allowed the corporate USAF processes, such the CORONAS, to operate efficiently and to show themselves at their best. Few changes introduced by a CSAF have flowed as smoothly through the corporate process as did the EAF.

The USAF confronted the need for change and responded to it by developing and implementing an answer appropriate for the time and place. The Expeditionary Aerospace Force will continue until the inevitable time arrives when different circumstances demand new solutions.

GLOSSARY

AB	Air Base
ABCCC	Airborne Command, Control, and Communications
ACC	Air Combat Command
ACS	Agile Combat Support
ADVON	Advanced Operational Nucleus
AEF	Aerospace Expeditionary Force
AETC	Air Education and Training Command
AEW	Air Expeditionary Wing; Aerospace Expeditionary Wing
AFA	Air Force Association
AFB	Air Force Base
AFDD	Air Force Doctrine Document
AFI	Air Force Instruction
AF/IL	Deputy Chief of Staff, Installation and Logistics
AFLANT	Air Force Atlantic
AFSC	Air Force Specialty Code
AF/XO	Deputy Chief of Staff, Air and Space Operations
AF/XP	Deputy Chief of Staff, Plans and Programs
AMC	Air Mobility Command
AOC	Air Operations Center
AWACS	Airborne Warning and Control System
BRAC	Base Realignment and Closure
CAF	Combat Air Force
CASF	Composite Air Strike Force
CC	commander
CENTAF	Central Command Air Forces
CENTCOM	*see* USCENTCOM
CINC	Commander in Chief
CINCCENTCOM	Commander in Chief, U.S. Central Command
CINCEUR	Commander in Chief, European Command

CINCPAC	Commander in Chief, Pacific Command
CINCTRANSCOM	Commander in Chief, Transportation Command
COMAFFOR	Commander, Air Force Forces
CONOP	concept of operations
CONUS	continental United States
CORONA	USAF leadership planning conference
CSAF	Chief of Staff, United States Air Force
CVBG	carrier vessel battle group
DCS	Deputy Chief of Staff
DIRMOBFOR	Director of Mobility Forces
DoD	Department of Defense
DRU	Direct Reporting Unit
eAF	expeditionary Aerospace Force
EAF	Expeditionary Aerospace Force
ECS	expeditionary combat support
FOA	Field Operating Agency
FOL	forward operating location
FY	fiscal year
GMFP	Global Military Force Policy
GNFPP	Global Naval Force Presence Policy
IPT	integrated process team
JCS	Joint Chiefs of Staff
JFACC	Joint Forces Air Component Commander
JOPES	Joint Operations Planning and Execution System
LD/HD	low density /high demand
MAF	Mobility Air Force:
MAJCOM	major command
MTC	major theater conflict
MTW	major theater war
NAF	numbered air force
NATO	North Atlantic Treaty Organization
NCA	National Command Authorities
OPORD	operations order
ORI	operational readiness inspection
PACAF	Pacific Air Forces
PGM	precision guided munition
PME	Professional Military Education
RSAFB	Royal Saudi Air Force Base
SAC	Strategic Air Command
SEAD	suppression of enemy air defense
SECAF	Secretary of the Air Force
SF	Security Forces
SIPT	Scheduling Integrated Process Team
SIT	Scheduling Integration Team

SPACECOM	Space Command
SSC	small-scale contingency
TAC	Tactical Air Command
TDY	temporary duty
TOA	total obligational authority
TPFDD	time-phased force deployment data
TRANSCOM	*see* USTRANSCOM
UN	United Nations
USAF	U.S. Air Force
USAFE	U.S. Air Forces in Europe
USCENTCOM	U.S. Central Command
USCINCEUR	U.S. Commander in Chief, European Command
USEUCOM	U.S. European Command
USMC	U.S. Marine Corps
USN	U.S. Navy
USS	United States ship
USSR	Union of Soviet Socialist Republics
USTRANSCOM	U.S. Transportation Command
UTC	unit type code
XOP	Directorate of Expeditionary Aerospace Force Implementation
XOPE	Division of Expeditionary Aerospace Force Implementation
XOPW	Division of War and Mobilization Plans
XOPX	Division of Regional Plans and Issues
XP	Office of Plans and Programs

SOURCE NOTES

1. Briefing, "Expeditionary Aerospace Force: A Better Use of Aerospace Power for the 21st Century," Gen. Michael E. Ryan, USAF, Aug 4, 1998 (hereafter General Ryan Briefing), Slide Nos. 3, 4.
2. Robert F. Futrell, *The United States Air Force in Korea, 1950–1953,* rev ed (Washington, DC: Office of Air Force History, GPO, 1983), pp. 67–75.
3. Robert F. Futrell with Martin Blumenson, *The Advisory Years to 1965,* The United States Air Force in Southeast Asia (Washington, DC: Office of Air Force History, GPO, 1981), pp. 79–82.
4. DoD, *Final Report to Congress: Conduct of the Persian Gulf War* (Washington, DC: GPO, Apr 1992), App. E, "Deployment," pp. 371–390.
5. USAF Statistical Digest, FY 1998, SAF/FM, Aug 1999, C–1, p. 22.
6. *See* USAF Statistical Digest, FY 1997, SAF/FM, F–3 and F–4, pp. 117–118. These tables supply raw inflation indices for several lines of the USAF budget. For FY 1983 dollars, I multiplied FY 1995 dollars by .64; for FY 1981 dollars, I used .60. In the aggregate, I believe these figures to be a rough, but just, indication of the relative overall purchasing power of their respective budgets.
7. William S. Cohen, *Secretary of Defense's Annual Report to the President and the Congress, 1997* (Washington, DC: GPO, Apr 1997), p. 16; USAF Statistical Digest, FY 1998, SAF/FM, Aug 1999.
8. "Air Force Holds Summit to Turn Tide in Retention," *Air Force Policy Letter Digest,* Feb 2000.
9. "Retention, Assignments, Promotions Drive Air Force's Future," *Air Force News Service,* Jan 29, 1999
10. Ibid.
11. Ibid.

12 "SECDEF Readiness Brief," USAF, n.d. [1998] (hereafter USAF Briefing), Briefing Slide No. 50, "Enlisted Retention."

13. Cohen, *SECDEF's Annual Report, 1997*, App. G, "Personnel Readiness Factors by Race and Gender."

14. 1st Lt. Kristen Skopeck, "Proposed Fiscal 2001 Budget Targets Air Force Survey Concerns," *Air Force News,* Mar 3, 2000.

15. "CSAF Survey Results Reveal Some Issues Still Need to Be Addressed," *Air Force Policy Letter Digest,* Feb 2000.

16. USAF Briefing. Briefing Slide No. 52, "Pilot Retention."

17. USAF Briefing, Briefing Slide No. 39, "MC Trends Since FY91."

18. DoD, *Conduct of the Persian Gulf War,* App. E.

19. Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston: Houghton Mifflin, 1993), pp. 498–500.

20. Background Paper, "Expeditionary-Type Air Force Operations," Lawrence R. Benson, Chief, Pentagon Branch, USAF History Support Office, Mar 3, 1999.

21. "Evolving to an Expeditionary Aerospace Force: Concepts and Implementation," Maj. Gen. Donald Cook, Director, Directorate of Expeditionary Aerospace Force Implementation (XOP), HQ USAF, Apr 5, 1999, Briefing Slide No. 18, "USAF Historical Requirements and EAF Forces Available."

22. Briefing, "Steady-State Requirements for USAF Forces: Background and Overview," prepared by DFI International for the Expeditionary Air Force IPT, Mar 1998, Briefing Slide No. 3, "Summary."

23. USAF Briefing. Briefing Slide No. 49, "Changing Family Demographics."

24. Briefing, "Response to CORONA TOP '98 Tasking on Contingency Operations Historical Review," prepared by Betac Corp. for AF/XPXQ, Aug 26, 1998, Briefing Slide, "Frequency of Contingency Deployments Active F–16CJ Units."

25. General Ryan Briefing, Slide No. 2, "A Changing Military Paradigm."

26. William J. Perry, *SECDEF's, Annual Report 1996,* p. 158.

27. Briefing, "Global Naval Force Presence Policy," Rear Adm. Steve Abbot, USN, Joint Staff, Deputy Director for Operations, Current Operations, n.d. [1996], Briefing Slide, "Factors Required for Continuous Presence (No Tethers)."

28. Briefing, "Air Expeditionary Force: Evolution of a Concept," n.d. [mid-1997], Briefing Slide No. 10, "Air Expeditionary Force History."

29 Ibid.

30. Ibid.

31. Ibid., Briefing Slide No. 17, "AEF III."

32. Background Paper on Air Expeditionary Force Deployments, Maj. Pfaff, [CENTCOM] A3DOOC/3004/gdp, Oct 28, 1997.
33. Point Paper, "AEF Lessons Learned," Maj. Shaw, [CENTCOM] DOOC, Oct 15, 1997.
34. Briefing, "A Concept for Lean and Mean Operations: The Air Legion," Maj. David A. Deptula, DCS, Plans and Operations, Deputy Directorate of Warfighting Concepts (XOXWD), Sep 1989.
35. General John M. Shalikashvili, CJCS, *Joint Vision 2010*, p. 31. *JV 2010* is the Chairman of the Joint Chiefs of Staff's "conceptual template," or vision, of how future U.S. armed forces will fight.
36. U.S. Department of the Air Force, *Air Force Issues Book 1997*, p. 39.
37. Ibid., p. 40.
38. USAF Scientific Advisory Board, *Report on United States Air Force Expeditionary Forces*, Vol. 1, *Summary*, "Executive Summary," pp. ix–x.
39. Air Force Doctrine Document (AFDD) 2, "Organization and Employment of Aerospace Power," Sep 28, 1998, p. 35.
40. [Air Force Doctrine Center], "Presentation of Forces," Apr 1, 1997, p. 23. The Little Red Book began before the establishment of the Doctrine Center. It grew from a draft operations primer on Air Expeditionary Force deployment produced by the 53d Wing (the successor to the Air Warfare School) and prepared by 53d Wing Commander Brig. Gen. Ronald E. Keys and his staff in mid-1996. It responded to a requirement from the Combat Air Force Commanders (CAF/CCs) to develop an operational concept for the presentation of air forces. For the evolution of this effort, *see* Briefing, "Air and Space Operations Primer," 53d Wing, Theater Operations Working Group, n.d. [mid-1996], and CAF CC Draft No. 3 [Little Red Book], Internet download, Oct 30, 1996. As head of the Doctrine Center, General Keys changed the thrust of the effort from preparing an operations primer for ACC to a USAF-wide statement of doctrine.
41. AFDD 1, "Air Force Basic Doctrine," Sep 1997, p. 79.
42. Interview, General Walter Kross, USAF (Ret.), with Richard G. Davis, National War College, Office 147, Ft. McNair, Washington, DC, 1030–1100, Apr 3, 2000.
43. AFDD 2, Sep 28, 1998, p. 57.
44. Ibid., p. 58.
45. Interview, Lt Gen Ronald E. Keys, J–3, EUCOM HQ, Stuttgart, Germany, with Richard G. Davis, AF/HSO, USAF Surgeon General's Conference Room, Bldg 5681, Bolling AFB, 0800-0845 EDT, Apr 6, 2000 (videocassette).
46. Draft [for CSAF Speech to AFA Symposium], Col. R. Michael Worden,

Commander, Chief of Staff's Operations Group (CCX), Jan 27, 1998. In his cover e-mail of this draft, Worden stated the CSAF had read and approved the draft. Attachment to e-mail, Col. Worden to Lt. Gen Patrick Gamble, DCS, Air and Space Operations, Jan 28, 1998. If General Ryan did not use these exact words, he did express these ideas during his presentation. By USAF policy, exact minutes of CORONA executive sessions are not kept.

47. Briefing, "Evolution of Expeditionary Aerospace Forces," CSAF to CORONA SOUTH, Feb 24, 1998, Slide Nos. 1–4.
48. Speech, "Building an Expeditionary Aerospace Force," Gen. Michael E. Ryan, CSAF, AFA Air Warfare Symposium, Orlando, Fla., Feb 27, 1998.
49. Notice to Airmen 98–1, Jan 14, 1998.
50. Key EAF Briefing and Interview List, Lt. Col. David K. Barrett, DCS, Air and Space Operations, Directorate of EAF Implementation, EAF Implementation Division (XOPE), Oct 7, 1998.
51. Air Force Posture Statement, 1998, p. 12.
52. Interview, Maj. Gens. Joseph H. Wehrle, Jr., XPP, and Charles F. Wald, Joint Staff, Vice Director for Strategic Plans and Policy, with Dr. Richard G. Davis, XOPE Staff Historian, XPP Office, Room 4B315, Pentagon, 1500–1530, Mar 21, 1999.
53. Briefing, "Evolving to an Expeditionary Aerospace Force — The Next Air Force Ethos," Brig. Gens. Wehrle and Wald to Lt. Gen. Lawrence P. Farrell, Apr 2, 1998 (hereafter Wehrle and Wald Briefing),.Briefing Slide, "Ongoing Operations in SWA and Bosnia and 'Pop-Up' Contingencies Strain TEMPO."
54. Wehrle and Wald Briefing, Briefing Slide, "Examining the Rest of the Air Force."
55. Briefing, "The Next Air Force," Brig. Gen. Wald, XPX, May 12, 1998, CSAF comments on Briefing Slide, "Force Structure Assumptions."
56. Wehrle and Wald Briefing, Briefing Slides, "Defining the Deployment Manpower Requirements (Source: MAJCOM DRMD [Deployed Management Requirements Document] Data" and "Steady State Support Requirements."
57. Wehrle and Wald Briefing, Briefing Slide, "Typical Support Package."
58. Ibid., Briefing Slides, "Approach: Options."
59. Briefing, "The Next Air Force," Brig. Gen. Wald, AF/XPX, to General Ralph E. Eberhart, Vice Chief of Staff, Apr 8, 1998, Briefing Slides, "Focus — Near to Midterm Effort," "Focus: Long Term Effort," and "Next Steps Upon CSAF Approval."
60. Notes on Lecture, "The Background of EAF and AEF," given by Lt. Col.

David K. Barrett, XOPE, to the EAF Outreach Workshop, Pentagon, May 12, 1999.

61. Notice to Airmen, CSAF, "Retention," Dec 11, 1997.
62. Briefing, "The Next Air Force," Brig. Gen. Wald, XPX, [to ACC, Director of Operations Staff], Apr 28, 1998.
63. E-mail, Subject: "FW: eAF Update, 17 March, attachment XP17Mar.doc," Brig. Gen. John Harvey, XPX, to Brig. Gen. Wald, XPX, Mar 18, 1998.
64. See note 62 above.
65. Briefing, "The Next Air Force," Brig. Gen. Wald, XPX, to the CSAF's Operations Group (CCX), May 4, 1998 (hereafter Wald Briefing), Briefing Slide, "Notional Support Requirements."
66. Ibid., Briefing Slides, "Organization Options."
67. Briefing, "The Next Air Force," Brig. Gens. Wald, XPX, Wehrle, XPP, and Northington, XPM, to Lt Gen. Farrell, XP, May 12, 1998 (hereafter Wald, Wehrle, and Northington Briefing), Briefing Slide, "Stay-at-Home Backfill Requirements."
68. Ibid., Briefing Slide, "Support Recommendation."
69. Wald Briefing, Briefing Slide, "Stay-at-Home Backfill Sourcing (How to Robust AEF Bases)."
70. Draft Briefing, "The Next Air Force," Brig. Gen. Wald, XPX, May 6, 1998, Briefing Slide, "Focus: Near to Mid-term Effort."
71. Briefing, "The Next Air Force," Brig. Gens. Wald, XPX, Wehrle, XPP, and Northington, XPM, to CSAF, May 13, 1998, Briefing Slides "Briefing to ACC/CC (8 May 98)" and "Addressing ACC's Concerns."
72. Wald, Wehrle, and Northington Briefing, CSAF comments on Briefing Slides, "Notational Rotation Schedule" and "Next Steps upon CSAF Approval." This copy of the brief was annotated by General Farrell, or some other officer, with General Ryan's comments on the brief made the next day.
73. Ibid., CSAF comments on Briefing Slide, "Stay-at-Home Backfill Requirement."
74. Draft Briefing, "The Next Air Force," Lt Gen. Farrell, XP, to CORONA TOP, Jun 13, 1998, Notes for Briefing Slide, "Combination Option."
75. Wald, Wehrle, and Northington Briefing, Briefing Slide, "Special Topic: Security Forces."
76. Ibid., CSAF comments on Briefing Slide, "Next Steps upon CSAF Approval."
77. Agenda, CORONA TOP '98, CT98–5, Jun 9, 1998.
78. Post-CORONA Briefing, "The Next Air Force," Brig. General Wald,

XPX, June [23] 1998, Briefing Slide, "CORONA TOP 98 EAF/AEF Taskers."

79. Briefing, "The Next Air Force," Gen. Michael E. Ryan, CSAF, to Secretary of Defense William S. Cohen and General Henry H. Shelton, Chairman JCS, Jul 16, 1998, Briefing Slide, "EAF Timeline."
80. See note 78 above.
81. Staff Summary Sheet, Subject: "Stand-up Actions for the Directorate of Expeditionary Aerospace Force Implementation," Maj. Gen. Donald G. Cook, Aug 31, 1998.
82. USAF Biography Sheet, Maj. Gen. Donald G. Cook, Nov 1998; Interview, Lt. Gen. (Sel.) Donald G. Cook, Director, Directorate of EAF Implementation, DCS, Air and Space Operations, by Richard G. Davis, XOPE Staff Historian, Office of the Director of EAF Implementation, Pentagon, May 24, 1999.
83. Briefing, "Implementing the EAF: An Effects-Based Organizational Approach," Maj. Gen. Donald G. Cook, XOP, Aug 26, 1998.
84. Ibid., Briefing Slide, "XOP Division Mission Areas."
85. Interview, Col. Robert R. Allardice, Chief, XOPE, by Richard G. Davis, XOPE Staff Historian, Col. Allardice's residence, Stafford Co., Va., Jan 6, 2000.
86. Air Expeditionary Force Master Implementation Plan, XOPE, Sep 30, 1998.
87. Draft Paper, Subject: "Key Issues for 4-Star Consideration from the AEF Implementation Plan Planning Conference," ACC AEF Team, [Col. Stephen E. Wright], Aug 14, 1998.
88. E-mail, Subject: "RE MAF EAF Conference," Lt. Col. David K. Barrett, XOPE, to Lt. Col. Stephen E. Wright, ACC/DOOD, Sep 9, 1998.
89. Issue Paper on Expeditionary Aerospace Forces (EAF), Lt. Col. Barrett, XOPE, Sep 26, 1998.
90. E-mail, Subj: "AFRC Replies to ACC Slides 21 Sep version," Lt. Col. Barrett, XOPE, to Maj. Thomas Byrd, AF Reserves, Robins AFB, Ga., Sep 25, 1998.
91. ACC Briefing Slides, "9+1 OFFSET" and "THE 'PLUS 1' AEF," n.d. [ca. Oct 1998].
92. E-mail, Subject: "Split Operations," Col. Thomas Toole, AF/ILMM, to Col. Allardice, XOPE, Nov 3, 1998.
93. Briefing, "Evolving to an Expeditionary Aerospace Force," Brig. Gens. Wald, AF/XPX, Wehrle, AF/XPP, and Northington, AF/XPM, May 8, 1998, Briefing Slide, "Example: AEF 1 Command Relationships."
94. Draft Briefing, "EAF Command Relationships, Roles & Responsibilities,"

Gen. Hawley, COMACC, Oct 5, 1998.

95. Draft Point Paper of Command Relationships Across the AEF Life Cycle, Lt. Col. Steve Wright, ACC/DOO, Jan 19, 1999.
96. See note 94 above.
97. Briefing, "Expeditionary Air Force Implementation Planning," Gen. Hawley to Gen. Ryan, Sep 16, 1998.
98. Agenda, CORONA FALL '98, CF98–6, Sep 10, 1998.
99. List, Subject: "Open Past CORONA Taskers," AF/CCX, Nov 30, 1998.
100. Item, CF98T–10, "Open Past CORONA Taskers," Maj. Malinski, AF/CCX, 30 Nov 1998; Briefing, "Expeditionary Aerospace Force," Maj. Gen. Cook, XOP, to EAF MAJCOM O–6 Conference, Oct 29, 1999.
101. Item, CF98T–9, "Open Past CORONA Taskers," Lt. Col. Conley, AF/CCX, Nov 30, 1998.
102. Message, 141227Z Oct 98, Subj: "Expeditionary Aerospace Force (EAF) Scheduling Integrated Process Team Conference," HQ ACC/DO to HQ USAFE/DO et al.
103. E-mail, Subject: "Your Feedback Is Needed ... ," Lt. Col. Edward W. Hatch, XOPE, to Lt. Col. John Verlinde, AF/ILEOR, et al., Nov 24, 1998.
104. E-mail, Subject: "Split Operations," Col. Allardice, XOPE, to Col. Thomas Toole, AF/ILMM, Nov 3, 1998.
105. Briefing, [no title,] HQ ACC/LGX, Nov 10, 1998.
106. Draft Briefing, "Implementing the EAF: Transition from '10+1' to 'Stacked 10' AEF Employment Concept," Maj. Eannarino, XOPE, Jan 8, 1999. See Slides, "Cost Discussion" and "Cost Data."
107. Point Paper, EAF Manpower Requirements, Lt. Col. John W. Raymond, XOPE, Jul 22, 1999.
108. Briefing, "FRU/DRU Baseline & Sourcing Options," Maj. Gen. Stephen B. Plummer, AF/XPP, Chairman, USAF Board of Directors, to the Air Force Council, Jul 22, 1999.
109. User's Guide for JOPES, May 1, 1995, p. i.
110. Joint Publication 5–0, "Doctrine for Planning Joint Operations," Apr 13, 1995, Chap. 3, pp. 1–17.
111. Briefing, "EAF Planning & Execution Conference 25 Jan 5 Feb 1999," [Maj. Gen Cook, XOPE,] to AF Reserve Readiness Conference, Oct 1998, Briefing Slide, "What Are We Talking About?"
112. List, complied from Briefing, "Expeditionary Combat Support (ECS) to the EAF," Maj. Christopher Valle, XOPW, Dec 10, 1998.
113. Briefing, "Expeditionary Combat Support (ECS) to the EAF," Maj. Christopher Valle, XOPW, Dec 10, 1998.

114. Interview, Col. (Sel.) David M. Aldrich, Deputy Chief XOPE, by Richard Davis, XOPE Staff Historian, Room 4D1069, Pentagon, Jan 6, 2000.
115. Information Briefing, Lt. Col. Virginia Werezynski, XOPE, to XOPE Staff, Aug 9, 1999.
116. Agenda, CORONA SOUTH '99, CS99–4, Jan 19, 1999
117. AFI 10–400, "Aerospace Expeditionary Force Planning," Oct 1, 1999, p. 1.
118. Briefing, "EAF Update," Maj. Gen. Cook, XOP, to CORONA SOUTH '99, Feb 2, 1999, Briefing Slides, "Analysis Results" and "What We Learned."
119. Ibid., Briefing Slide, "Framing the Task."
120. E-mail, Subject: "Criteria for Lead Wings," Col. Allardice, XOPE, to Maj. Gen. Cook, XOP, Nov 5, 1998.
121. Briefing, "AEF Lead Wings," Maj. Gen. Cook, XOP, to CORONA SOUTH '99, Feb 2, 1999, Briefing Slide, "Recommendations."
122. Briefing, "Integrating the AEF into the Joint Planning Process," Maj. Gen. Cook, XOP, to CORONA SOUTH '99, Feb 2, 1999, Briefing Slide, "Recommendations."
123. "Open Past CORONA Taskers," Lt. Col. Conley, AF/CCX, Feb 22, 1999.
124. "Force Structure Changes Announced," *USAF News Service,* Mar 5, 1999.
125. [DoD Operations Summary], "Kosovo Operations May 24, 1999," May 25, 1999.
126. Notice to Airmen, [Commander], "Kosovo Impact on Expeditionary Aerospace Force," May 27, 1999.
127. "AEF Plans Not Designed to Deal With Kosovo-Scale, Missions, Officials Say," *Inside the Air Force*, Apr 30, 1999.
128. Background Paper on Status of EAF Implementation, Col. Allardice, XOPE, Apr 26, 1999; Allardice Interview, Jan 6, 2000.
129. Allardice Interview, Jan 6, 2000.
130. Ibid.
131. Ninth Draft, XOP Briefing, "Transition from SCC to MTW," May 14, 1999.
132. Ibid.
133. Ibid
134. Briefing, "Reconstitution Planning Post-Kosovo," XOPE, May 21, 1999.
135. Message, 212115Z May 99, Subject: "Post Kosovo Reconstitution Planning," HQ USAF/XO to ALMAJCOM et. al.
136. Allardice Interview, Jan 6, 2000.

137. Interview, Maj. Gen. William S. Hinton, Jr., by Richard G. Davis, XOPE Staff Historian, XOP Office, Room 4D231, Pentagon, Dec 8, 1999.
138. Hinton Interview, Dec 8, 1999.
139. Background Paper, CORONA FALL '99 Topics, XOPE Staff, n.d. [Sep 1999].
140. Allardice Interview, Jan 6, 2000.

OTHER WORKS CITED

Air Force Doctrine Document 1. "Air Force Basic Doctrine." Sep 1997.

Air Force Doctrine Document 2. "Organization and Employment of Aerospace Power." Sep 28, 1998.

Air Force Posture Statement, 1998.

Atkinson, Rick. *Crusade: The Untold Story of the Persian Gulf War.* Boston: Houghton Mifflin, 1993.

Cohen, William S. *Secretary of Defense Annual Report to the President and the Congress, 1997.* Washington, DC: GPO, Apr 1997.

Davis, Richard G. *Immediate Reach, Immediate Power*: *The Air Expeditionary Force and American Power Projection in the Post Cold War Era.* Washington, DC: USAF History and Museums Program, 1998.

Department of Defense, *Final Report to Congress: The Conduct of the Persian Gulf War.* Washington, DC: GPO, Apr 1992.

Futrell, Robert F. *The United States Air Force in Korea 1950–1953.* Rev. Ed. Washington, DC: Office of Air Force History, 1983.

Futrell, Robert F., with Martin Blumenson. *The Advisory Years to 1965.* The United States Air Force in Southeast Asia. Washington, DC: Office of Air Force History, GPO, 1981.

USAF Statistical Digests FY 1998 and 1997, SAF/FM, Aug 1999.

U.S. Department of the Air Force, *Air Force Issues Book 1997.*